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VOL. XVIII. NO. 15.

AUG. 1, 1890.

PEACE ON EARTH  
GOOD WILL TOWARD MEN



# CLEANING IN BEE CULTURE

DEVOTED  
TO  
BEEKEEPING

& HOME INTERESTS.

MEDINA, OHIO.

BY

AL ROOT

TERMS, ONE DOLLAR PER YEAR.

500  
S W Conrad



## ADVERTISEMENTS.

We require that every advertiser satisfy us of responsibility and intention to do all that he agrees, and that his goods are really worth the price asked for them. Patent-medicine advertisements, and others of a like nature, can not be inserted at any price.

### Rates for Advertisements.

All advertisements will be inserted at the rate of 20 cents per line, Nonpareil space, each insertion; 12 lines of Nonpareil space make 1 inch. Discounts will be made as follows:

On 10 lines and upward, 3 insertions, 5 per cent; 6 insertions, 10 per cent; 9 insertions, 15 per cent; 12 insertions or more, 20 per cent; 24 insertions or more, 25 per cent.

On 48 lines (½ column) and upward, 1 insertion, 5 per cent; 3 insertions, 10 per cent; 6 insertions, 15 per cent; 9 insertions, 20 per cent; 12 insertions, or more, 25 per cent; 24 insertions or more, 33½ per cent.

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On 192 lines (whole page), 1 insertion, 15 per cent; 3 insertions, 20 per cent; 6 insertions, 25 per cent; 9 insertions, 30 per cent; 12 insertions or more, 40 per cent; 24 insertions or more, 50 per cent.

No additional discount for electrotype advertisements.

A. I. ROOT.

## CLUBBING LIST.

We will send GLEANINGS—

|   |          |        |
|---|----------|--------|
| With the American Bee-Journal, W'y                  | (\$1.00) | \$1.75 |
| With the Canadian Bee Journal, W'y                  | ( 75)    | 1.65   |
| With the Bee Hive,                                  | ( 30)    | 1.20   |
| With the Bee-Keepers' Review,                       | ( 50)    | 1.40   |
| With the British Bee-Journal,                       | (1.50)   | 2.40   |
| With all of the above journals,                     |          | 5.40   |
| With American Apiculturist,                         | ( 75)    | 1.70   |
| With Bee-Keepers' Advance and Poultryman's Journal, | ( 50)    | 1.45   |

|                                       |          |      |
|---------------------------------------|----------|------|
| With American Agriculturist,          | (\$1.50) | 2.25 |
| With American Garden,                 | (2.00)   | 2.60 |
| With Prairie Farmer,                  | (1.50)   | 2.35 |
| With Rural New-Yorker,                | ( 50)    | 2.90 |
| With Farm Journal,                    | ( 50)    | 1.20 |
| With Scientific American,             | (3.00)   | 3.75 |
| With Ohio Farmer,                     | (1.00)   | 1.90 |
| With Popular Gardening,               | (1.00)   | 1.85 |
| With U. S. Official Postal Guide,     | (1.50)   | 2.25 |
| With Sunday-School Times, weekly,     | (1.50)   | 1.75 |
| With Drainage and Farm Journal,       | (1.00)   | 1.75 |
| With Illustrated Home Journal,        | (1.00)   | 1.75 |
| With Orchard and Garden,              | ( 50)    | 1.40 |
| With Cosmopolitan, (new sub. to Cos.) | (2.40)   | 2.40 |

[Above Rates include all Postage in U. S. and Canada.]

## QUEENS and SUPPLIES.

Untested Italian queens, each.....\$1.00

Tested.....2.00

Send for price list of bees and supplies.

Address **F. W. LAMM,**  
(Box 106.) **Somerville, Butler Co., Ohio.**  
Please mention this paper.

**Ah THERE!** One untested Italian queen, 75c; three for \$2.00; tested, \$1.50. One untested Carniolan queen, \$1.00; three for \$2.50; tested, \$2. Bees by the pound and nucleus. Send for price list. Reference—First National Bank.  
10tfdb **H. G. FRAME, North Manchester, Ind.**  
Please mention this paper.

## Golden Yellow Italians \* \* \* and Albino Queens

That will give perfect satisfaction. Tested, \$1.25. Select tested, \$1.50. Untested, 75 cts. from now until October. I guarantee safe delivery. Sold this year 113 queens.  
J. W. TAYLOR,  
13-15tdb **Ozan, Hempstead Co., Ark.**  
In writing advertisers please mention this paper.

Names of responsible parties will be inserted in any of the following departments, at a uniform price of 20 cents each insertion, or \$2.00 per annum, when given once a month, or \$4.00 per year if given in every issue.

## Untested Queens

FOR \$1.00 FROM JULY 1ST TILL NOV. 1ST.

Names inserted in this department the first time without charge. After, 20c each insertion, or \$2.00 per year.

Those whose names appear below agree to furnish Italian queens for \$1.00 each, under the following conditions: No guarantee is to be assumed of purity, or anything of the kind, only that the queen be reared from a choice, pure mother, and had commenced to lay when they were shipped. They also agree to return the money at any time when customers become impatient of such delay as may be unavoidable.

Bear in mind, that he who sends the best queens, put up most neatly and most securely, will probably receive the most orders. Special rates for warranted and tested queens, furnished on application to any of the parties. Names with \*, use an imported queen-mother. If the queen arrives dead, notify us and we will send you another. Probably none will be sent for \$1.00 before July 1st, or after Nov. 1st. If wanted sooner, or later, see rates in price list.

|  |          |
|--|----------|
| *A. I. Root, Medina, Ohio.                                 |          |
| *H. H. Brown, Light Street, Col. Co., Pa.                  | 7tfdb90  |
| *Paul L. Viallon, Bayou Goula, La.                         | 7tfdb90  |
| *S. F. Newman, Norwalk, Huron Co., O.                      | 7tfdb90  |
| C. C. Vaughn, Columbia, Tenn.                              | 9tfdb90  |
| Wm. L. Ashe, Edwardsville, Mad. Co., Ill.                  | 9tfdb90  |
| J. M. Jenkins, Wetumpka, Ala.                              | 9tfdb90  |
| *Oliver Hoover & Co., Snyderstown, Northumberland Co., Pa. | 17tfdb90 |
| C. R. Mitchell, Birmingham, Jeff. Co., Ala.                | 9tfdb89  |
| N. A. Knapp, Rochester, Lorain Co., O.                     | 15tfdb89 |
| D. E. Jacobs, Longley, Wood Co., Ohio.                     |          |
| D. A. McCord, Oxford, Butler Co., Ohio.                    |          |

## Hive Manufacturers.

Who agree to make such hives, and at the prices named, as those described on our circular.

|  |         |
|--|---------|
| A. I. Root, Medina, Ohio.                      |         |
| P. L. Viallon, Bayou Goula, Iberville Par., La | 7tfdb90 |
| C. W. Costellow, Waterboro, York Co., Me.      | 7tfdb90 |
| R. B. Leahy, Higginsville, Laf. Co., Mo.       | 9tfdb90 |
| J. M. Jenkins, Wetumpka, Ala.                  | 9tfdb90 |
| W. T. Falconer Mfg. Co., Jamestown, N. Y.      | 7tdb    |

## "HANDLING BEES." Price 8 Cts.

A chapter from "The Hive and Honey Bee, Revised," treating of taming and handling bees; just the thing for beginners. Circular, with advice to beginners, samples of foundation, etc., free.  
5tfdb **CHAS. DADANT & SON,**  
**Hamilton, Hancock Co., Illinois.**

In responding to this advertisement mention GLEANINGS.

## FOLDING PAPER BOXES. CRAWFORD'S SECTION CARTONS ARE THE BEST.

Send for free sample and price list, and find out the reason. A certain fact has come to our knowledge that is worth dollars to you. Send for it.

**A. O. CRAWFORD, S. Weymouth, Mass.**

12tfdb Please mention this paper.

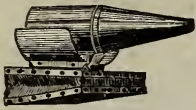
## BRIGHTEST GOLDEN ITALIAN BEES AND QUEENS, —AND THE—

### REDDEST DRONES IN THE WORLD.

Untested, \$1.00 | Tested, \$2.00 | Select tested, \$3.00  
Special breeding, guaranteed to please, \$5.00.

**L. L. HEARN, - FRENCHVILLE, - - W. VA.**  
11tfdb Please mention this paper.

## \*BEST ON EARTH\*



ELEVEN YEARS  
WITHOUT A  
PARALLEL, AND  
THE STAND-  
ARD IN EVERY  
CIVILIZED  
COUNTRY.

Bingham & Hetherington  
Patent Uncapping-Knife,  
Standard Size.

Bingham's Patent Smokers,  
Six Sizes and Prices.

|                      |            |          |           |
|----------------------|------------|----------|-----------|
| Doctor Smoker,       | 3 1/2 in., | postpaid | ...\$2.00 |
| Conqueror "          | 3 "        | "        | ... 1.75  |
| Large "              | 2 1/2 "    | "        | ... 1.50  |
| Extra (wide shield)  | 2 "        | "        | ... 1.25  |
| Plain (narrow " )    | 2 "        | "        | ... 1.00  |
| Little Wonder,       | 1 1/4 "    | "        | ... .65   |
| Uncapping Knife..... |            |          | ... 1.15  |

Sent promptly on receipt of price. To  
sell again, send for dozen and half-dozen rates.

Milledgeville, Ill., March 8, 1890.

SIRS:—Smokers received to-day, and count cor-  
rectly. Am ready for orders. If others feel as I do  
your trade will boom. Truly, F. A. SNELL.

Vermillion, S. Dak., Feb. 17, 1890.

SIRS:—I consider your smokers the best made for  
any purpose. I have had 15 years' experience with  
300 or 400 swarms of bees, and know whereof I speak.  
Very truly, R. A. MORGAN.

Sarabville, Ohio, March 12, 1890.

SIRS:—The smoker I have has done good service  
since 1883. Yours truly, DANIEL BROTHERS.

Send for descriptive circular and testimonials to  
1tfdb BINGHAM & HETHERINGTON, ABRONIA, MICH.

☞ In responding to this advertisement mention GLEANINGS.

## TAKE NOTICE!

BEFORE placing your Orders for SUPPLIES,  
write for prices on One-Piece Basswood Sec-  
tions, Bee-Hives, Shipping-Crates, Frames, Founda-  
tion, Smokers, etc. Address

R. H. SCHMIDT & CO.,  
21-20db NEW LONDON, WAUPACA CO., WIS.

☞ In responding to this advertisement mention GLEANINGS.

## Black and Hybrid Queens For Sale.

For the benefit of friends who have black or hybrid queens  
which they want to dispose of, we will insert notices free of  
charge, as below. We do this because there is hardly value  
enough to these queens to pay for buying them up and keep-  
ing them in stock; and yet it is oftentimes quite an accommo-  
dation to those who can not afford higher-priced ones.

Ten young hybrid Italian queens for sale at 25c  
each, if you take five or more you may have them  
at 20 cents each. J. H. JOHNSON.

Middaghs, Northampton Co., Pa.

30 good hybrid queens for sale raised under the  
swarming impulse, 30c each, or 4 for \$1.00.

J. M. KINZIE, Rochester, Oakland Co., Mich.

I am now requeening my apiary, and will have  
about 25 queens to spare, mostly Italians with just  
a slight dash of black blood; any one sending pro-  
visioned cages can have them at 25c for one, or 5 for  
\$1.00. LUTHER PURDY, Killbuck, Holmes Co., O.

25 mismatched Italian and albino queens for 20c  
each; 12 for \$2.00, or 25 for \$4.00. I guarantee safe  
delivery. J. W. TAYLOR, Ozark, Ark.

50 hybrid queens for sale at 20c each; 5 for \$1.00.  
J. A. GREEN, Dayton, Ill.

Five fine hybrid queens 25c each; or the lot for  
\$1.00. WILLIAMS BROS., Burdick, Porter Co., Ind.

## DADANT'S FOUNDATION

Is kept for sale by Messrs. T. G. Newman &  
Son, Chicago, Ill.; C. F. Muth, Cincinnati, O.; Jas.  
Heddon, Dowagiac, Mich.; O. G. Collier, Fairbury,  
Nebraska; G. L. Tinker, New Philadelphia, Ohio;  
E. S. Armstrong, Jerseyville, Ill.; E. Kretschmer,  
Red Oak, Iowa; P. L. Viallon, Bayou Goula, La.,  
Jos. Nysewander, Des Moines, Ia.; C. H. Green,  
Waukesha, Wis.; G. B. Lewis & Co., Watertown,  
Wisconsin; J. Mattoon, Atwater, Ohio, Oliver  
Foster, Mt. Vernon, Iowa; C. Hertel, Freeburg,  
Illinois; Geo. E. Hilton, Fremont, Mich.; J. M.  
Clark & Co., 1517 Blake St., Denver, Colo.; Goodell &  
Woodworth Mfg. Co., Rock Falls, Ill.; E. L. Gould  
& Co., Brantford, Ont., Can.; R. H. Schmidt &  
Co., New London, Wis.; J. Stauffer & Sons, Nappa-  
nee, Ind.; Berlin Fruit-Box Co., Berlin Heights, O.;  
E. R. Newcomb, Pleasant Valley, N. Y.; L. Hansen,  
Davenport, Ia.; C. Theilman, Theilmanton, Minn.;  
G. K. Hubbard, Fort Wayne, Ind.; T. H. Strickler,  
Solomon City, Kan.; E. C. Eaglesfield, Berlin, Wis.,  
Walter S. Pouder, Indianapolis, Ind., and numer-  
ous other dealers.

## LANGSTROTH on the HONEY-BEE, REVISED.

The Book for Beginners, the Most Complete Text-  
Book on the Subject in the English Language.

Bee-veils of Imported Material, Smo-  
kers, Sections, etc.

Circular with advice to beginners, samples of  
foundation, etc., free. Send your address on a  
postal to

CHAS. DADANT & SON,  
HAMILTON, HANCOCK CO., ILLINOIS.

☞ In responding to this advertisement mention GLEANINGS.

MUTH'S  
HONEY - EXTRACTOR,  
SQUARE GLASS HONEY-JARS,  
TIN BUCKETS, BEE-HIVES, HONEY-  
SECTIONS, &c., &c.  
PERFECTION COLD-BLAST SMOKERS.

Apply to CHAS. F. MUTH & SON,  
Cincinnati, Ohio.

P. S.—Send 10-cent stamp for "Practical Hints to  
Bee-keepers." ☞ Mention Gleanings. 1tfdb

## \*THE CANADIAN\*

Bee Journal Poultry Journal

Edited by D. A. Jones. Edited by W. C. G. Peter.

75c. Per Year.

75c. Per Year.

These are published separately, alternate weeks,  
and are edited by live practical men, and contribut-  
ed to by the best writers. Both Journals are inter-  
esting, and are alike valuable to the expert and  
amateur. Sample copies free. Both Journals one  
year to one address \$1. Until June 1st we will send  
either Journal on trial trip for 6 months for 25 cts.

The D. A. Jones Co., Ltd., Beeton, Ont.  
☞ Please mention GLEANINGS. 6-11db



☞ In responding to this advertisement mention GLEANINGS.



## Wants or Exchange Department.

**WANTED.**—To exchange all kinds of wall paper, for honey. 1tfdb J. S. SCOVEN, Kokomo, Ind.

**WANTED.**—To exchange 1 lb. of thin fdn. for 2 lbs. of wax. 7tfdb J. C. W. DAYTON, Bradford, Ia.

**WANTED.**—To exchange Italian bees in portico L. hives for a good set of tinner's tools. 13tfdb J. A. BUCKLEW, Warsaw, Ohio.

**WANTED.**—To correspond with parties having honey, potatoes, peaches, apples, etc., for sale. Prompt attention given to all letters. EARLE CLICKENGER, Commission Merchant, 15-16-17d Columbus, O.

**WANTED.**—To exchange young Canary Birds, in pairs, and White Leghorn chicks, in trios, for Italian bees or queens. Address I. FERRIS PATTON, Lawrenceburg, Ind.

**WANTED.**—A position as apiarist in western Louisiana. Answer at this office.

**WANTED.**—Second-hand section machine. Give price, and time in use. C. P. BISH, 15-16d Grove City, Mercer Co., Pa.

**WANTED.**—1000 lbs. of nice white clover bees' honey, in 1-lb. sections. Will pay cash, or exchange supplies for the apiary. Address with price, A. D. ELLINGWOOD, Milan, N. H. 14-15d

**WANTED.**—I want a situation in a Cuban apiary. 12 years' experience. Reference, C. F. Muth & Son, Cincinnati, Ohio. Address A. CARDER, 15-16d Hebron, Boone Co., Ky.

**WANTED.**—To exchange a Shipman oil engine, one horse power, in good order, for 1000 pounds of white extracted honey, or offers. 15tfdb F. A. SALISBURY, Syracuse, N. Y.

**WANTED.**—To exchange good colonies of bees in standard L. hives, for a first-class gold watch. Will give good trade for watch that suits me. 15tfdb J. V. CALDWELL, Cambridge, Ill.

**WANTED.**—To exchange warranted queens for foundation or offers. W. C. MAUSER, Lewisburg, Pa.

**WANTED.**—I will exchange sewing-machines, new, and fruit-trees, for honey. Address 15-24 E. PETERMAN, Waldo, Wis.

**WANTED.**—To rent for cash or sell farm of 60 acres, five miles from this city. About 25 acres in fruit. 13 acres of strawberries, 3 acres of raspberries, 3 acres of blackberries, 1 acre of grapes, 5 acres of apple, peach, and plum trees. Balance of land No. 1 for marketing purposes. Buildings and other improvements in fine shape. Reason for selling, too many irons in the fire. EARLE CLICKENGER, Com. Merchant, 15-16d Columbus, O.

## SECTIONS! SECTIONS! SECTIONS!

On and after Feb. 1, 1890, we will sell our No. 1 V-groove sections, in lots of 500, as follows: Less than 2000, \$3.50 per 1000; 2000 to 5000, \$3.00 per 1000. Write for special prices on larger quantities. No. 2 sections at \$2.00 per 1000. Send for price list on hives, foundation, cases, etc.

J. STAUFFER & SONS,  
Successors to B. J. Miller & Co.,  
Nappanee, Ind.

In responding to this advertisement mention GLEANINGS.

**HOME EMPLOYMENT. — AGENTS** wanted everywhere, for the HOME JOURNAL—a grand family paper at \$1 a year. Big cash premiums. Sample FREE. THOS. G. NEWMAN & SON, 246 East Madison Street, CHICAGO, ILLS.

In responding to this advertisement mention GLEANINGS.

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## CONVENTION NOTICES.

The Southwestern Wisconsin Bee-keepers' Affiliated Association will meet Oct. 1, 1890, in Platteville, Wis., at the residence of E. France, to commence punctually at 10 A.M., sharp. There will be a large turnout of prominent bee-keepers of the State. A question-box, free to all, in which any subject you wish discussed can be presented and answered. Let every one be on hand and bring in his report for 1890, starting at spring count, or May 1. There will be blanks sent to each member for this purpose, in due time, by the secretary. Boscobel, Wis. BENJ. E. RICE, Sec'y.

## HONEY COLUMN.

### CITY MARKETS.

**MILWAUKEE.**—Honey.—The demand for honey is good for this season of the year. The supply of old crop is fair, equal to the demand. Can quote:

White, 1-lb. sections, choice, 13@14; white, 1-lb. sections, medium, 12@13; dark, 1-lb. sections, good, 10@11; white extracted, in bbls. and half-bbls. 7@7½; white extracted, in kegs and tin, 7½@8; dark extracted, in kegs, bbls., and tin, 6@6½. Beeswax, 28@30. A. V. BISHOP, Milwaukee, Wis. July 14.

**COLUMBUS.**—Honey.—Market bare of merchantable stock. The crop in our own apiary being a failure, the same being the case in the surrounding country, from which we draw our supplies at this season, shipments from a distance would meet with ready sales at 17@18 cts. for fine white clover. July 23. EARLE CLICKENGER, Columbus, O.

**BOSTON.**—Honey.—No change in honey or beeswax. BLAKE & RIPLEY, 57 Chatham St., Boston, Mass. July 23.

**SAN FRANCISCO.**—Honey.—Honey quiet. Extracted, 5@5½; comb honey, 11@12½. Beeswax, 21@23. SCHACHT, LEMCKE & STEINER. June 14. 16 & 18 Drum St., San Francisco, Cal.

**ST. LOUIS.**—Honey.—New crop comb, 1-lb. sections, 13½; extracted and strained, in cans, 8@9; extracted and strained, in bbls., 6½. Beeswax, prime, 27. Demand fair. D. G. TUTT GROCER CO., July 19. St. Louis, Mo.

**DETROIT.**—Honey.—No new honey offered, and no old left to quote. Beeswax, 26@27c. July 18. M. H. HUNT, Bell Branch, Mich.

**WANTED.**—Comb and extracted honey. State price and quantity. WALTER S. POWDER, Indianapolis, Ind.

**FOR SALE.**—2000 lbs. of extracted honey, in 60-lb. tin cans. Send for samples and prices. LEINIGER BROS., Douglas, O.

**FOR SALE.**—2500 lbs. extracted white honey, in 60-lb. cans, @ \$5.00 per can F. O. B. R. L. TUCKER, 15-16d Nevada, Mo.

**FOR SALE.**—3000 lbs. comb and extracted honey, A No. 1. Address J. B. MURRAY, Ada, Ohio.

Please quote honey. Can use 2000 lbs. nice. THE DODGE GROCERY CO., Dayton, O.

# VICTOR \* BICYCLES\*



Will carry you up hill easier  
and down hill faster than any  
others you ever mounted.

ALL INTERCHANGEABLE.

ALL HIGH GRADE.

ALL RIGHT.

*Send for Catalogue.*

**OVERMAN WHEEL CO., Makers, Chicopee Falls, Mass.**

In responding to this advertisement mention GLEANINGS.

## KIND WORDS FROM OUR CUSTOMERS.

The bee-hives arrived all right, and we are much pleased with them. G. GARVER.  
McVeytown, Pa., June 9.

### PROMPTNESS.

The queen ordered yesterday by telegraph was received to-day, safely. Accept my thanks for your prompt fulfillment of my order. E. E. BEWINGER.  
Pittsburg, Pa., July 22, 1890.

### WELL PLEASED.

I received the queen in good condition. I am well pleased with the whole transaction. Accept thanks. I am so well pleased that you will find another order accompanying this.  
Wawaka, Ind., July 22, 1890. T. J. MAWHORTER.

### GLEANINGS GOOD FROM COVER TO COVER.

You may continue GLEANINGS until you are told to stop, and that will be when I am unable to keep bees or earn enough to pay for it. GLEANINGS, from cover to cover, is charming for the enthusiastic apiarist, and always a welcome visitor with me.  
Arden, N. Y., July 19, 1890. J. G. EARL.

### GLEANINGS A GOOD INVESTMENT.

I am very much pleased with GLEANINGS, and will say that its cost has many times returned to me in the knowledge of facts contained therein. No investment I ever made returned me so much on first cost as GLEANINGS. G. WIEDERHOLD.  
Yonkers, N. Y., June 20.

### LIKES THE DOVETAILED HIVE.

I received the 20 Dovetailed hives the 27th, all O. K. They were packed very nice. I am well pleased with them. All who have seen them say they are the right kind of hive to use.  
Naples, N. Y., Apr. 30. W. H. ELLERINGTON.

### BEEES SAFELY TO SOUTH DAKOTA.

The bees you shipped me July 10th arrived on the 14th. They were just what I wanted, and in good shape. I find that it pays to order from parties that are responsible, even if it does cost a little more, as I have ordered from several parties, and got a bad muss, and from some I did not get any thing—not even my money back; yet I thought I would save express by getting them nearer home, but not so.  
Winfred, S. Dakota, July 15. J. W. CHAPIN.

### GLEANINGS A GOOD ADVERTISING MEDIUM.

The orders for merchandise, foundation, and labels, have been duly received. Every thing was ac-

cording to list, and, as usual, quite satisfactory. We can very heartily join our testimony to that of others, that GLEANINGS is a remunerative advertising medium. A few years of prominence before the public is necessary for a wide business.  
Westfield, Mass., July 11. F. H. & E. H. DEWEY.

### AN A B C SCHOLAR'S EXPERIENCE.

When I was a boy in my old Kentucky blue-grass home I helped my father work with bees in the old round tree gum. The love of bees then instilled into my heart still clings to me, so I procured five colonies in old round black gum hives, and transferred them a few weeks ago into L. hives, which I made myself, and now want to combine bee-keeping on a small scale with the garden and fruit. My friend J. Gaston Catmel, a bee-keeper, has kindly loaned me some copies of GLEANINGS and your A B C of Bee Culture. I am so well pleased with these publications that I must get each of them as soon as my means will allow it. Your position in regard to tobacco, intoxicating drinks, and profanity, together with your plan of working with boys and girls and grown-up people in your business, meets my hearty approval. May God bless your work. Keep on, dear brother. There are few on earth that live and work on that line. Work on that line, and don't surrender. May we meet over there, if not in this vale of tears. M. C. BRICKEY.  
Jackson, Tenn., July 2.

### SUPPLY-DEALERS BEING BEHIND; THE OTHER SIDE.

*Friend Root:*—In looking over GLEANINGS for June 15 I notice the letter of F. F. Harrington. It pains me to read such communications, and I want to say to the readers of GLEANINGS that I have had dealings with A. I. Root for several years, and have found him one of the most prompt supply-dealers I have ordered from. His promptness in answering letters is one of the reasons I order goods shipped so far; and if any misunderstanding occurs he is always ready and willing to make it satisfactory; and what more can mortal man do? Who of us do not make mistakes? And I do hope, dear friends, we shall all try to have more charity for one another. I have felt the inconvenience of this waiting, very much; and I have been compelled to order a few goods from other dealers to last me until they do come; but I am not going to blame A. I. Root for it. He has not been sending out any price lists for some time, and is doing all in his power to fill orders, and I can not think any one is excusable for accusing him of using deception. That word means a good deal. Bro. Root, I trust you will not let unkind letters worry you very much. I presume friend H. is a stranger to you.  
Linn, Kan., June 20. J. T. VAN PETTEN.



**"BANNER"** Years ago, when I began working with my brother, the editor of the *Review*, his apiary was called the "Banner Apiary." A large share of this apiary is still kept at the old place, where I manage it on shares. It is stocked with a fine strain of Italians, and I have been saving the best cells from the best colonies, when they swarmed, and having the queens hatched and fertilized in nuclei. These queens I offer at 75 cts. each, or three for \$2.00. No black bees near here. Can fill orders promptly, and will guarantee safe arrival. Make money orders payable at Flint, Mich. Address

**ELMER HUTCHINSON,**  
Rogersville, Genesee Co., Mich.  
In responding to this advertisement mention GLEANINGS.

## CARNIOLAN BEES.

For the highest type of these bees see our advertisement in GLEANINGS, July 1 No. 15tfdb  
J. B. MASON & SON, Mechanic Falls, Me.  
In writing to advertisers please mention this paper.

**TESTED** or warranted Italian queens, 90c each; untested (young laying) Italian queens, 60c each. Can send by return mail. Address  
OTTO-KLEINOW, No. 150 Military Avenue,  
Detroit, Mich.

**500 Italian Queens** For Sale. Tested, \$1.10, three for \$3.00. Untested, 70 cts. each; three for \$2.00. Also bee-keepers' supplies, etc. 16-page circular free. 15tfdb  
JNO. NEBEL & SON, High Hill, Mo.  
In responding to this advertisement mention GLEANINGS.

## Alley's Business Queens

ONE DOLLAR EACH.

**HENRY ALLEY, - - WENHAM, MASS.**  
Please mention GLEANINGS. 15tfdb

## THOSE 75 Ct. ITALIAN QUEENS

FROM THE OLD MAID'S APIARY,

Are giving perfect satisfaction. Orders promptly filled. Satisfaction guaranteed.

Address **E. D. ANDREWS, P. M.,**  
North New Salem, Mass.  
Please mention this paper.

## Italian Honey Queens.

Tested, \$1.25; untested, 75c.; select tested, \$2.00. I have shipped queens from Canada to Texas, and from New Jersey to Oregon. Never had a complaint nor lost a queen. Two-frame nucleus with any queen, \$1.50 extra. I guarantee satisfaction or refund money.

**R. W. TURNER, Medina, Ohio.**  
In writing to advertisers please mention this paper.

**A REVOLUTION** In Strawberry growing. The **Enhance** is the most reliable, most productive, largest shipping and all-purpose berry ever before offered. Send for description and price. **HENRY YOUNG, Ada, Ohio.** 15-16d

In responding to this advertisement mention GLEANINGS.

**FOR SALE.**—Apiary and small fruit farm, half-mile from court-house, 30 acres; 60 L. hives, honey-house, extractor, etc.; wire-netting poultry-yard, poultry-house, 50 Langshans. Box house with 3 rooms, good well, timber and grass, field and garden tools, etc., all for \$800.00, half cash, balance time. **F. M. SAUNDERS, Hamilton, Texas.** 9-10d  
Please mention this paper.

## CARNIOLAN \* QUEENS,

Circulars giving special prices for Carniolan queens, bred the remainder of the season from pure and gentle mothers, the workers of which can not be surpassed as honey-gatherers. Send for circular.

**JOHN ANDREWS,**  
Pattens Mills, Wash. Co., N. Y.  
15tfdb  
In responding to this advertisement mention GLEANINGS.

## AL-BI-NO.

Do you want to take the premium at your fair this fall? If so, send for my prices on two and three frame nucleus of the most beautiful and gentlest race of bees known.

—THE ALBINO.—

Send for a queen and be convinced. 15-17d  
**A. L. KILDOW & BRO., Sheffield, Ill.,**

In responding to this advertisement mention GLEANINGS.

FRIENDS, I HAVE

## Italian \* Queens

For sale, bred from an imported queen direct from Italy very cheap. Send for prices. Address

**FRANK LAURENTHAL,**  
Brickner, Ohio.

In responding to this advertisement mention GLEANINGS.



**FOR SALE.**—My queen-rearing apiary and business, dwelling and out-buildings, and about 8 acres, for \$1700.00. Fruit and berries; fine location; pleasant village; a nice home at a bargain. Also privilege of an out-apiary. Write. 15tfdb  
**CHRISTIAN WECKESSER, Marshallville, Wayne Co., Ohio.**

In responding to this advertisement mention GLEANINGS.

**Italian Queens Cheap.** TESTED, \$1.50. UNTESTED, 75c.  
13-14-15d **A. R. YOUNG, Rossie, St. Law. Co., N. Y.**

## THE BRIGHTEST

Five-banded, golden Italian Bees and Queens, and the **Reddest Drones.** Very gentle; very prolific; good honey-gatherers—working on red clover—and the **Most Beautiful** bees in existence! Took 1st premium at Michigan State Fair, in 1889. Reference, as to purity of stock, Editor of *Review*. Sample of bees, five cents. Untested queens, \$1.00. 6 for \$5.00. Tested (at least 3 bands), \$3.00; selected, tested (four bands), \$5.00; breeding queens (4 to 5 bands), \$7.00. Virgin queens, 50 cents; 5 for \$2.00. Safe arrival and satisfaction guaranteed.

**JACOB T. TIMPE,**  
Grand Ledge, Mich.

8-15db  
In responding to this advertisement mention GLEANINGS.

## CARNIOLAN APIARY FOR SALE!

My Carniolan apiary must be sold at once, to allow me to move to Colorado Springs.

"You have the best Carniolans in the country."  
**H. ALLEY.**

Select imported queen, \$5; untested queen, \$1; untested, 1/2 doz., \$5; tested queen, \$4; 1 lb. bees, \$1; 3-frame nucleus, \$2.00; full colonies, in 1-story Simplicity 9-frame hive, \$5; add price of queen you want. Ten per cent discount on all orders of \$20.00 or over. Large stock of all ready to ship at once. Queens by mail, others on board cars here by freight or express, as ordered. Remittance of currency, bank draft, or money order must accompany all orders.

Will sell my whole apiary and implements, and give immediate possession. House and grounds also for rent.

**S. W. MORRISON, M. D.,**  
12tfdb **Oxford, Chester Co., Pa.**  
In responding to this advertisement mention GLEANINGS.

## IF YOU ARE IN WANT OF BEES or BEE-KEEPERS' SUPPLIES,

Send for our New Catalogue.

9tfdb **OLIVER HOOVER & CO.,**  
Mention this paper. **Snydertown, Pa.**

## SECTIONS.

\$2.50 to \$3.50 per M. Bee-Hives and Fixtures cheap. **NOVELTY CO.,**

6tfdb **Rock Falls, Illinois.**  
Please mention this paper.





Vol. XVIII.

AUGUST 1, 1890.

No. 15.

TERMS: \$1.00 PER ANNUM IN ADVANCE;  
2 Copies for \$1.90; 3 for \$2.75; 5 for \$4.00;  
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#### SHIPPING AND SELLING HONEY.

VALUABLE HINTS FOR EVERY PRODUCER, FROM  
OUR COMMISSION MEN.

As honey-producers, in a majority of cases, are about ready to dispose of their product (if indeed they have any to sell) it may not be amiss to give some practical suggestions regarding when and how to ship, and the best marketable form in order to get the best returns. This information ought to come from those who have had largest experience in the way of shipping and selling honey, and we have therefore prepared a series of questions, and sent them on to those who quote prices in our Honey Column; namely, the much-abused commission men. These fellows, with all their faults, render much and valuable service to bee-keepers, though some of our friends, we fear, think otherwise. While it is a good rule to dispose of honey at home if we can, at good prices, yet if this can not be done we must seek the aid of those who make it a business to handle honey. Our honey-men have very kindly answered the questions we ask below, and we hope our readers will take pains to read carefully the suggestions given in the replies. The questions are as follows:

1. Do you prefer to receive consignments of comb honey in single-tier or double-tier cases? and what capacity in pounds?

2. What is your opinion as to the best size of sections for selling—1-lb.,  $4\frac{1}{4} \times 4\frac{1}{4}$ , or a different size?

3. Do you prefer that the 1-lb. section shall contain a little less than a pound, or a little more?

4. Do any of your customers sell sections

by the piece rather than by weight? What way has your preference?

5. Do you have any difficulty in moving off dark grades of honey?

6. Would you recommend the producer to market all his dark honey in extracted form, rather than in comb?

7. What sort of package is best adapted for shipping extracted honey? What do you think of the 60-lb. square tin cans, as compared with barrels and kegs, for shipping? In short, what package do you recommend your shippers to consign you extracted honey in?

8. About what time ought comb honey to be sold, to get the best prices? What time for extracted?

9. When a consignment of comb honey comes to you in a broken-down condition, what do you do?

10. Do you think that producers realize more for their honey when shipped on commission than when sold outright?

The replies are as follows:

1. Single-tier cases, not over 30 lbs. net.
2.  $4\frac{1}{4} \times 4\frac{1}{4}$ .
3. 1-lb. sections preferred, *short weight*.
4. Retailers sell by the piece, calling it a pound.
5. Dark grades, except buckwheat, move off slowly, and at low prices, comparatively, though straight buckwheat sells readily.
6. We recommend extracting *all* dark honey but buckwheat.
7. We prefer cheap dark grades of extracted honey in barrels or half-barrels, on account of lower cost; fine grades in new 60-lb. cans, with screw tops, or in good kegs.
8. Best time for *comb* honey, in the early season;

i. e., September and October; extracted, from September to February.

9. When consignments come in broken, and shippers hold a receipt signed, "In good order," without the claim, "Owner's risk," etc., we make claim for damage against the transportation company, in many cases.

10. Producers generally realize more when shipped on commission than when sold outright. This is the reason why the king of bee-keepers, Capt. H., ships all of his product on commission.

1-lb. sections of honey sell best in light and showy paper cartons. We recommend strongly, again and again, to put in every crate a sheet of corrugated or indented pasteboard. It protects the combs somewhat against breakage; and if one comb is leaking it protects all others against soiling.

New York, July 7. F. G. STROHMEYER & Co.

1. We prefer the single-tier cases, about 25 lbs. each.

2. One-pound sections.

3. Full one pound.

4. Honey in sections is generally sold by weight.

5. There are objections to dark colors, and such can be sold only at a reduced price.

6. By all means let the dark honey be extracted, as it will not sell in the comb.

7. We find extracted honey more salable in barrels and half-barrels. We would not advise 60-lb. packages of any sort. They are more expensive, and yet not desirable. We would recommend shippers to send their extracted honey in barrels or half-barrels, whichever is the more convenient to them.

8. The best time for shipping comb honey is in September or October, after the hot weather is over. It is more generally used during cold weather. Extracted honey can be shipped at all seasons of the year, as the demand is not governed so much by the weather.

9. Comb honey received in a broken or bad condition has to be sold for what it will bring, as the longer it is kept the greater the waste, and less valuable it becomes; hence the necessity of the shipper's starting it in good sound packages.

10. This can be answered only by the shipper himself. If he can realize a fair price at home, we think it safe for him to accept; but there are times and places when the producer can not find sale for his property, in which case he is compelled to find a market elsewhere. Our market is quiet to-day. Our receipts are increasing. We anticipate a good demand at remunerative prices this season.

St. Louis, July 22. D. G. TUTT GROCER CO.

1. We prefer to receive consignments in single-tier cases of from 12 to 25 lbs. weight. The 12-lb. cases meet with general favor, and always move off first. Single-tier cases are preferable, as they ship in better condition; and in case of leakage there is no bottom layer to spoil.

2. The  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$  section, in our opinion, is the best size, for market use.

3. Our customers prefer a section to contain a little less than 1 lb., as they are mostly sold by the piece, and not by weight. By so doing they gain a few pounds on every case, which is quite an advantage, as the article is sold on a close margin.

5, 6. We find it difficult to move all dark grades of honey, both comb and extracted.

7. Extracted honey shipped to this market should be in cans holding 60 lbs. or less.

8. As the honey crop in this section has been a partial failure for the past few years, the same being the case this year, we find that honey placed on the market early brings the best price. Later in the season it is gathered in from different sections, causing a break in price.

9. When a consignment of honey arrives in broken-down condition we recrate it. The broken combs are placed in cans, and disposed of to the best advantage. As a usual thing, when honey arrives in that condition there is very little realized out of it. Breakage might be avoided to a great extent if shippers would be careful to pack their honey properly. We have had shipments of honey arrive with a space of  $\frac{1}{4}$  of an inch between sections, causing, by continued jostling,  $\frac{3}{4}$  of the sections to break down, and a leakage of  $\frac{1}{2}$  or more of the honey. In most cases, when honey is properly packed, particularly in small cases, it comes through in good shape.

10. When honey arrives in good shape we think producers realize more by having it sold on commission. In addition we would suggest that shippers be careful to sort their honey, and pack the same grade together. Never mix light and dark. Always ship by freight, as it arrives in much better shape than by express.

EARLE CLICKENGER.

Columbus, Ohio, July 21.

1. We prefer single-tier cases weighing from 16 to 18 lbs.

2. One-pound sections,  $4\frac{1}{4} \times 4\frac{1}{4}$ , sell well, as do also sections  $4 \times 5\frac{1}{4}$ . The latter are one inch thick, weigh a trifle less than a pound, and are generally retailed by the piece. We also have considerable demand for 5x5 sections weighing a pound and a half.

3. We prefer that the 1-lb. sections contain a little less than a pound.

4. Very many of our customers sell sections by the piece rather than by weight, and we prefer this way for retailing.

5. We have no difficulty in moving dark grades of honey.

6. We would not recommend the producer to market all his dark honey in extracted form, but only that portion that is unsalable in the comb.

7. Extracted honey sells well in barrels, half-barrels, 60-lb. square tin cans, and small pails. We would recommend large producers to use half-barrels, and small producers the smaller packages.

8. Comb honey sells best during the months of September and October. The earlier it can be placed on the market, the better. The demand for extracted does not begin much before January, and sells well during the three following months.

9. We find the best thing to do with a consignment of broken honey is to offer it somewhat below the market price, and sell as soon as possible. There are always buyers for such honey, and it does not pay to overhaul damaged stock.

10. We think producers, as a rule, realize more from honey placed on commission with firms that make a specialty of selling honey than by selling outright, for the reason that the party buying outright must assume the risk of a possible decline in prices, and on that account can not pay full market price at time of purchase. We seldom have any trouble from broken honey when shipped by



freight, but we rarely receive a consignment by express that is not more or less damaged; besides, freight rates are much lower than express. Consigners should seek to keep the cases as clean and bright as possible, therefore avoid marking with brush and paint. Small stencil or rubber stamps will answer every purpose. We advise glassing one side of case only, and not the sections.

Albany, N. Y., July 9. CHAS. McCULLOCH & Co.

1. We prefer comb honey in single tiers, twelve frames to case, weight  $10\frac{1}{2}$  to 12 lbs.

2. The best size of sections to show comb honey, we think, is  $5 \times 4\frac{3}{8}$  by  $1\frac{1}{4}$  thick.

3. We prefer light weight, but only from  $1\frac{1}{2}$  to full weight in the 12 lb. cases.

4. Most of the retail trade sell comb honey by the section.

5. We never have had any trouble in moving dark comb honey.

6. We would recommend extracting half of the dark honey.

7. We certainly recommend the screw-top 60-lb. square can, shipped in cases of two cans to the case. It all has to be put in this shape to sell in our market, except very dark honey.

8. Producers of honey, like producers of grain, must use their own judgment in moving their crops. Comb honey is sold every day in the year. As soon as the new crop comes in we always find the farmer and small bee-man selling their honey at very low prices, some years supplying the trade until October. After that time honey-dealers govern prices to a certain extent. If a number of shippers want honey sold quick, and every shipper is forcing sales at the time, this compels receivers to keep honey down in order to move stocks.

9. When a consignment of comb honey is received in bad order, we have our man go through the consignment and take out all unbroken comb and repack the same. The broken comb is then sold.

10. If a producer has a home trade for his honey, and time to sell the same, he may do better than shipping; otherwise a good commission man that makes a specialty of honey can sell his crop to better advantage than the producer. All comb honey should be shipped where it is to be sold, before freezing weather. It saves the shipper breakage, and the sellers the trouble of repacking, as comb honey shipped in cold weather is almost always received in bad order.

HAMBLIN & BEARSS.

Kansas City, Mo., July 12.

1. We prefer single-tier cases with a capacity of 20 or 25 lbs., it does not matter which.

2. We prefer, for one-pound sections,  $4\frac{1}{2} \times 4\frac{1}{2}$  size.

3. We prefer that one-pound sections shall weigh 15 ounces rather than 17.

4. Most of our customers prefer to sell honey by the piece rather than by weight. Our preference, for our customers' sake, is that the weight be so that they can do this. We, of course, are obliged to sell by weight.

5. We have very great difficulty in moving off a dark grade of honey. Boston is the poorest market in the country for off-grade honey.

6. We would certainly recommend the producer to market his dark honey in the extracted form.

7. We prefer the 60-lb. square tin cans to any thing else, there being two 60-lb. cans in a case. We

receive a great deal of honey from Florida in kegs and barrels, but prefer the tin cans.

8. Comb honey ought to be sent to market about September 1, and from that on through the season. Extracted, about Oct. 1.

9. When a consignment of comb honey comes in in a broken-down condition, we find some restaurant man who will cut the combs out and sell them from a platter, but we have very hard work, and rarely get over 8 to 10 cts. per lb. for the honey, and never can collect any damage from the transportation company.

10. This is a hard question, especially for a commission man, to answer; and we think it best for the producer to draw his own conclusions from his experience. We have a great many letters from shippers, expressing their perfect satisfaction with the way and manner and prices they have received for their shipments of honey to us. We have had some people who have written us they could have realized more if they had sold their honey at home. We can only say that, after fifteen years of close attention to the honey business, we turn away five times as much honey as we receive, it always being our policy to check all consignments that we do not think we can handle to advantage, preferring to please our shippers rather than to secure a large quantity of honey and cut prices. We feel very sure that those who have shipped to us believe that they can do better than to sell their honey. There has been a tendency of late years to rush honey to the market in the early part of September. This always demoralizes prices; and receivers, in their anxiety to sell, put honey lower than there is any necessity for it to be sold.

Boston, Mass., July 7.

BLAKE & RIPLEY.

1. In general we prefer consignments of comb honey to come in single-tier cases; yet when properly packed, the double-tier case is usually preferred by the retail dealer, as honey shows up to better advantage, and carries, or bears transportation, equally well.

2. Sections  $4\frac{1}{2} \times 4\frac{1}{2}$  we think most desirable for 1-lb. combs.

3. We should like the section to contain exactly one pound of honey. Perhaps scant is better than over, as the frame is too full, and dealers lose the overweight in many instances.

4. Where the special advantage to the retailer exists is in having sections so uniform in weight that they can be sold at so much per frame.

5. There is a very limited demand for dark comb honey, and it seems to us that only those who have worked up or secured a trade for it should put it on the market unless they can afford to have it sell at 3 to 5 cts. per pound below the white in same shape. Extracting is, to our mind, the best way to secure good value for dark honey, it varying in price from one to two cents below white. A good demand is also found for it, especially a choice article, such as well-ripened buckwheat, for which we have a line of customers.

6. The most popular packages in this market are barrels containing 300 to 500 lbs., and the square tin can, which ought to contain just 60 lbs. of honey. These packages meet the wants of dealers who buy of the commission merchant or jobber. Kegs are too light, and honey soaks through them. As to which of the two packages to use, we would invariably give the tin preference, as dealers who

use barrels will take tins when barrels can not be obtained; but it is more difficult to get the other class to take barrels in lieu of tins. Yet if the tins cost half a cent per pound more than the barrels, use the barrel.

7. Our experience would point to the four closing months of the calendar year, or middle of August to middle of December, as the best months in which to sell honey, both comb and extracted; but, please remember we do not say that that is the time to sell, for circumstances beyond our control, and our general inability to read the future, warn us that all commercial rules are subject to change. The highest prices obtained by us in an experience of 16 years were in February and April, 1879. The lowest was about the same time in 1887.

8. Sell it as soon after arrival as possible. We do not recase nor change from original package.

9. Sometimes one, and again the other. Circumstances existing at the time should determine the matter.

10. The subject has been quite exhaustively treated by Mr. C. F. Muth, in your issue of June 15, and we agree with him in the main details of preparation, etc., of honey for the market. As the form of package he finds necessary in his method of disposing of honey is fully explained, and the reason therefor given, no comment is needed. The one-pound section for comb honey, and the tin can and barrel before described, are at present the popular packages here.

R. A. BURNETT.

Chicago, Ill., July 12.

Yours of July 5th is received. We will try to answer your questions as near as we know how. Before commencing, we should like to say that we think the questions asked are very important, both to producers and dealers, especially those pertaining to getting honey ready for market, grading, and style of packages. If all bee-keepers could realize the importance of putting up their honey in merchantable shape they would realize much better prices and quicker sales. There is nothing better than a whitewood package for comb honey; one side glass front is sufficient; and be very careful that the contents of the case compare favorably with the row of sections that is exposed.

1. We prefer the single-tier cases, either 12 or 24 sections, weighing about 11 to 22 lbs. respectively.

2. We like the 5 by 4 $\frac{1}{2}$  and 1 $\frac{1}{2}$  thick section best. It shows a larger surface of the comb than a 4 $\frac{1}{4}$  by 4 $\frac{1}{4}$  does.

3. As the one-pound sections can not be made to weigh exactly a pound, we prefer they weigh a little less.

4. The most of our customers sell more honey by the section than they do by the pound. We should prefer to sell it by the pound.

5. We have considerable difficulty in disposing of dark comb honey, even at low prices.

6. We would recommend that at least fifty per cent of the very dark comb honey be extracted.

7. The very best package for shipping white and amber extracted honey in is the five-gallon screw-top tin can, two cans inclosed in a wooden case. Ship the very dark honey in kegs and barrels.

8. We can not say when is just the best time to sell comb or extracted honey in order to realize the best prices; but we would advise early shipments, as honey is much less liable to be broken down while in transit when shipped in warm weather

than in cold. The early shipments of comb honey generally bring the best prices, but only in a small way. Our best trade for both comb and extracted honey commences with cool weather, and continues about the same through the season. Very little extracted honey is sold until cool weather.

9. When a consignment of comb honey comes to us in a broken down condition we immediately have it looked over, all the perfect sections selected, put back in the cases, and the broken comb sold to the first customer, generally realizing about half price for it. The next thing we do is to present a bill of damages to the railroad or express company for the loss.

10. As to whether producers realize more for their honey when shipped on commission or sold right out is a rather delicate question for a commission merchant to answer; but we with pleasure refer to our numerous patrons who have consigned honey to us the past season. They will bear us out in saying that they realized more for their honey than they would have done had they (if they could) sold right out. Some producers get in a great hurry to realize from their crop; and if they don't find a customer just when they want to sell, and at the price they ask, they become uneasy for fear they will not be able to dispose of their honey. The very worst competition we had last season originated with this class of bee-keepers. We would advise them to ship their honey to some commission merchant, and give him time to dispose of it. He makes it a business to find the best market, thereby realizing the best prices for his shipper, and making him happy.

Kansas City, Mo.

CLEMONS, MASON & CO.

The replies given by commission men will in every case be found exceedingly valuable, and we hope all honey-producers will take the time to read this whole subject thoroughly. By way of a summary we note the first question, that the single-tier case is invariably preferred, the capacity being anywhere from 12 to 24 lbs.

(2) The 4 $\frac{1}{2}$  sections are in most cases recommended; and,

(3) Light weight rather than overweight is preferred, because

(4) The most of the retail trade sell comb honey by the section. We must confess that we are a little surprised at the replies to 3 and 4. Our customers are, for some reason or other, beginning to demand 4 $\frac{1}{2}$  sections a little less in width than the regular 1 $\frac{1}{2}$ . In fact, during the past season we have supplied a very large trade on 1 $\frac{1}{2}$ , and we propose next year to make the 1 $\frac{1}{2}$  section our standard, rather than the 1 $\frac{1}{2}$ —not only because bee-keepers demand it, but because commission men recommend underweight rather than overweight. Right here a wrong may be involved; but if the retail dealers distinctly state that their sections are sold by the *piece* and not by the *pound*, and the customer so understands it, then there is nothing wrong nor dishonest about it, any more more than there is in selling apples and oranges by the piece. Still again, most people are better satisfied in their conscience to buy a luxury providing it costs a little less than they anticipated; but if it exceeds the price which they have fixed in their mind as the limit of what their purse will



stand, they will rarely buy. For instance, comb honey is quoted at 20 cts. per lb. A customer asks his dealer the price of this or that section of honey. If he says 18 cts., the honey is sold; if 22 cts. is asked, the customer refuses to buy.

(5) We are surprised that so many of the commission men say they have no trouble in moving off the dark honeys.

(6) We note that most of them prefer to sell dark honey in extracted form rather than in the comb; and they advise the producer to extract most of his dark honey, if he wishes to sell it.

(7) It is surprising to note how popular the 60-lb. square tin can is for shipping extracted honey. Only two—and one of these very emphatically—prefer barrels instead of the square cans. The latter costs about half a cent a pound, and new barrels can be had for about a quarter of a cent. One of the dealers says that, if barrels cost half a cent more than the tin, use the barrels; but otherwise, he says, use the tin. After all, it seems that there is only a quarter of a cent in favor of the barrels; and as commission men generally prefer the square cans, producers may all gather a good hint here.

(8) The best time to move off comb honey is some time in the fall—it may be early or late. A good deal depends on circumstances and the judgment of the seller.

(9) We have had honey come to us in a broken-down condition; and knowing that our commission men must have had similar experiences we are greatly interested in reading their replies. We have been in the habit of sorting it over and wiping off soiled and sticky sections, but it takes a good deal of time. Blake & Ripley suggest a very sensible method of disposing of it—getting restaurant-keepers to take it at a reduced price. Chas. McCullough & Co. do not think it pays to overhaul it, and they remark that there are buyers who will always take it.

(10) We knew that this question would be a hard one for commission men to answer; but their replies seem candid, and we have no doubt but there are many times when honey on commission will bring more than when sold outright. In the latter case there is an immediate and certain return, while in the former there is some risk. It is true, that when honey is bought outright the buyer must assume all risk of fluctuations in prices; and to be on the safe side he will naturally buy as low as possible. If honey is sold on commission, both parties are interested in getting as good a return as possible, though we know *sometimes* the producer is dissatisfied with the returns. If he could put himself in the position of the commission man perhaps he would think more charitably of his neighbor.

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### JONES VS. BROWN, AGAIN.

#### THE LEGAL ASPECT OF THE CASE.

I HAVE been very much interested in the controversy over the question of the responsibility of the above parties as stated in the contract, and I differ entirely from Mr. Caldwell, Mrs. Harrison, and others. In reading the contract it reads to me like

this: Jones has let 100 (number not given) stands of bees to Brown, each to share the *profits* alike. Now, then, let us suppose that A. I. Root agrees to let W. S. Fultz have 100 stands of bees for the season of 1890, Fultz to take care of them and to share the profits with A. I. Root, and the increase is 100 stands of bees during the season. Now, how many stands of bees will belong to A. I. Root, and how many to W. S. Fultz? Evidently, A. I. Root will want the original 100 and half the increase, which would make his share of the bees 150 stands, and W. S. Fultz would have only 50 stands.

Now, if those bees were lost during the following winter, the loss of the increase, which was all that was owned in common, should be borne by both parties alike; but the original 100 stands were the property of A. I. Root, and he should stand the loss on them. According to the contract as stated in GLEANINGS, it is evident that, when Jones and Brown dissolve partnership, Jones will want his original 100 stands of bees, or all of them that will be alive at the time, and also half the increase. Then the proposition of Mr. Caldwell, in last GLEANINGS, that they are both equal owners in the apiary, is not correct. Brown is not part owner in any thing but the profits.

W. S. FULTZ.

Muscataine, Ia., July 8.

When doctors disagree, who shall decide? It seems to me, friends, that keeping bees on shares is a complicated way of doing business, at the best. Why not rent them for a certain sum of money, to be paid in time, whether the season be good or bad? But even then we should have to meet the question of returning the bees in as good order as they were received.

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### GETTING THE BEES OUT OF THE SECTIONS.

DOOLITTLE GIVES A DISCOURAGING REPORT OF THE HORIZONTAL BEE-ESCAPES.

As the time for taking off the surplus honey is at hand, perhaps a few words regarding getting the bees out of the sections will not be amiss. The most common way of doing this in years gone by, and, surprising as it may appear, quite common yet in some places even at the present time, was to go to the hive and slide a piece of tin between the communications of the hive and sections, when they are removed; or else smoke is used to drive the bees from these openings, when, in either case, the honey is carried to a room having all but one window darkened, where it is left for the bees to collect on this window, when they are put outdoors by reversing the sash, or otherwise. The latter plan, where smoke is used, will do much better than the former; for with the tin, many bees are cut in twain and otherwise mutilated, thereby making the colony very cross, besides being a very cruel mode of procedure. I hope that no one in the future will persist in such a way of taking off honey.

Some use a barrel or bee-tent to set the honey in, instead of the room, putting a cloth over the barrel for the bees to collect upon, when it is turned over as often as the bees collect upon it, thus setting the bees free. With the tent a hole is left in the top for the bees to go out through. This latter is preferable to the room, providing the barrel or tent is left

in the apiary near where the honey is taken; for in this case many of the young bees will find their hives, while they would not if carried to the room. Some of our eastern bee-keepers have bee-escapes on the hoods or caps to their hives, the same being a cone-shaped piece of wire cloth which is placed over a hole in the cover to the hive. At the point of this cone is a hole large enough to admit a bee, which point stands out from the hive. The honey is now separated from the main hive, and communication with it shut off, while the passageways to the sections are left open. The cover is now put on, which allows no place for the bees to get out, except through the bee-escapes. The bees now commence to leave the sections, going out through the escapes, while no robber bees can get at the honey, because they do not know enough to go out to the point of the cone-shaped wire cloth, but keep trying to get in near the base, where the fragrance of the honey is the strongest. In a day or two the honey is gathered up free of bees. When I heard Mr. Manum tell of this process at a bee convention, I at once fell in love with it, especially as he told of taking off double the amount of honey in a given length of time that it was possible for me to do. The only drawback there is to it, and the one which is applicable to all plans where the bees are removed from the hive, is, that very many young bees are taken with the honey, too young to get back again, while the queen is sometimes carried away, unless a queen-excluder is used, which in either case results in quite a loss, especially if the queen should happen to be in the sections. Again, the bees will always fill themselves with honey when thus removed; and in doing so they often make the nice combs quite unsightly by their gnawing the cappings to the cells. For the above reasons I prefer to proceed as follows, so as to leave all bees in the hive where they belong, and save the harm to the combs. I go to the hive, quietly remove the cover and one of the outside boards to the section case on the side next to me, when a few puffs of smoke are given to drive the bees off the face side of the combs. I next go to the opposite side of the hive, take off the board there also, and treat that side the same as the first. I now point the nozzle of the smoker to each of the little holes the bees always leave in the upper corners of the sections, when the smoker is worked vigorously, say two or three puffs at each hole. The same is done on the other side, using force enough with the smoker to drive the smoke clear through the sections from one side to the other. Now wait a moment or so, to give the bees time enough to run down into the hive below, when the sections are taken off nearly or entirely free from bees, and are ready to be stored away as soon as off, just where they are wanted. Should a very few bees stick to them they will be old bees, and when they fly to the window of the honey-room they can be let out and will always find their way back to the hive. Caution should be taken not to wait too long after the smoke has been blown through the holes, especially when honey is not coming in; for if we do, a reaction will take place, when the bees will run back into the sections almost as lively as they went out, where they will stick till they have filled themselves with honey, in spite of smoke or any thing else. When I first saw the horizontal bee-escapes which were to be used in the honey-board the past winter, I had great hopes for them in ridding our sections

of bees, and allowing them to go right down into the hive where they belonged, so that, without danger to either queen or young bees, we might take our honey from the hives with little labor, and free from bees; but I am informed that those horizontal bee-escapes worked far better on paper than they now do when they come to be used on the hives. One of the inventors of these escapes writes me that he is disappointed with them, on account of their not doing what was expected of them. So far our season for honey has proved almost a failure, so I have had no chance to give them even a trial. I hope, if they are not already what they ought to be, that some inventive genius may find out where the trouble is, and give us an escape that can be placed under a case of sections or an extracting super at night, and rid it of bees before morning.

G. M. DOOLITTLE.

Borodino, N. Y., July 17.

Friend D., I am very sorry indeed to hear that you have succeeded no better with the horizontal bee-escapes. At the time so much was said about them I was a little fearful that it would turn out as you say. Perhaps, however, others have succeeded better. Friends, will you please give us your experience, especially in using the horizontal bee-escape to get the bees off from your comb honey?

#### KEENEY'S COMB-SPACER

A DEVICE TO GET RID OF BURR-COMBS, THICK TOP-BARS, AND HONEY-BOARDS.

I THINK it was Josh Billings who asked the question, "What's the use of learning so much, when half you learn ain't so?" I have thought of it often during the last year, when reading the different articles in bee-periodicals upon the subjects of burr-combs, sagging top-bars, thick top-bars, beveled top-bars, with many devices illustrated to prevent them. Ah me! how well I know that many things for use in the apiary are perfect in theory, but practically are total failures. No subjects in apianian work have I given so much study to, as properly and accurately spacing my combs, preventing burr-combs and sagging top-bars, and I am happy to say I am master of the situation, and my frames are as free from burr-combs (except when sections are on) as when you ship them from the factory. With my spacing-device, bees winter better, come out stronger in spring, and, as a practical test, every other hive to the number of fifty, for two years, the spacers were left out; and those with it in swarmed 16 days the earliest, on an average, through the apiary, showing they were warmer, and bred up much faster—fully 40 per cent. Bees can be moved to and from out-apiaries, to and from cellar, or about the yard, without a frame slipping or shucking a particle. It is applicable to any kind or size of movable-frame hive, with combs wired as described in GLEANINGS for May 15th. Every comb will be as even and true as so many boards. Loafing-places for from 100 to 1000 bees will be closed. Any frame in the apiary will exactly fit the place of any other frame, no matter from what hive taken, making them all interchangeable, so desirable to every apiarist. The spacers can be taken out or put in in half a minute, and they do not cost 5 cents per hive. I have fully tested them two years with pride, pleasure, and profit. I use a hive similar in



size to your eight-frame Dovetailed, my frames being  $\frac{3}{8}$  thick by  $\frac{7}{8}$  wide, top, ends, and bottom-bars. These in the hive evenly spaced, leave 7 spaces between the frames,  $\frac{1}{8}$  inch wide, with two spaces back of the outside combs, just half that width. Now get 7 strips  $\frac{3}{8}$  inch thick, scant  $\frac{1}{8}$  inch wide, and the length of your top-bar, also two strips half the width gotten out, and put them in those spaces; clean off from your old frames burr-combs, side and top; and if you have bulged comb, shave it off for that spacing, and you will find that all future comb-building will be in exact keeping with that scant  $1\frac{1}{2}$ -inch spacing. It works perfectly; and if any practical apiarist will give it a trial, and can find any fault with it, I should like to have him tell what it is, in GLEANINGS.

E. D. KEENEY.

Arcade, N. Y.

If I understand your spacing-device it is simply a series of strips of wood wide enough and long enough so as to close entirely the spaces between the frames. Of course, there will be no burr-combs because the bees can not gain access to the tops of the frames the spacers are on. Those spacers must be removed every time you put on sections or an extracting-super. I doubt very much whether such an arrangement will be tolerated by bee-keepers in general, for you yourself say that there are no burr-combs except when the sections are on, and that is just the *very* time when burr-combs are built, and when we don't want them. When honey is not coming in they are not built, and so your spacers will do no good except to hold your frames at fixed distances. In fact, friend K., we do not see that you get rid of the burr-combs at all.—Your method of wiring is working nicely, and it will probably supersede all other methods for new frames in the near future.

#### DADANT'S EXTRA-THIN FOUNDATION STRETCHING.

##### THE RIGHT AND WRONG WAY TO PUT FOUNDATION INTO SECTIONS.

I am using Dadant's extra-thin comb foundation in the standard one-pound section, but have to trim every piece, as the bees bulge it if used full size. Now, if this is always the case why do they not make it narrower and save waste? Can you mention this in GLEANINGS? I should like to know what others think about it. Bees are booming on basswood now. It opened here July 4.

HARRY LATHROP.

Browntown, Wis., July 10, 1890.

We sent the above to Chas. Dadant & Son, who reply:

We think the main trouble lies in the foundation not being properly hung. It should hang thus: or



it may be that the foundation was too fresh when used, for we notice that the softness of the fresh sheets, which makes them more malleable for the bees, also helps them to sag more readily. Most of our customers use foundation for sections 4 inches wide, and we have but very few complaints of its

being too wide; we think this is due to the fact that the most of them do not use full sheets, but only three-cornered pieces or narrow strips running the full length of the section. We prefer to use sheets about  $4\frac{1}{2}$  inches wide, and cut them in two so as to make a little over two inches in depth. This allows of sagging whenever there is any in the extra-thin foundation. We expected to hear of more sagging this year than other seasons, owing to the exceedingly hot weather of the month of June, but so far we have not had any complaints. We should like to hear from others. We cut our foundation any size wanted.

DADANT & SON.

Hamilton, Ill., July 19, 1890.

The point you make, friend D., is referred to by Cheshire in his work, and we are glad the matter has come up as it has, for the opportunity is presented of instructing the users of foundation respecting the right and wrong way of putting foundation into sections. When it is fastened into sections as shown in the engraving, the downward pulling is all on perpendicular lines. When it is put in the other way, the cell-walls running upward are like a rail fence, or thus: If there is any stretching, this rail fence, as it were, straightens out a little. All our L. foundation is made with the cells so as to hang to the top-bar as shown in the engraving below. Our thin surplus, when it comes out of the mill, is in long strips, four inches wide. If pieces two inches wide are cut off the end, and fastened the long way to the top of the sections they will be suspended the wrong way. If, however, these strips be cut into squares, and then divided the other way, the foundation, when put into the sections, will hang right. There is only one way to get our brood-foundation into brood-frames; and that is, with the cells hanging right as shown below. We have no doubt but that Mr. Dadant makes his foundation in the same way.

After dictating the above I went down into the wax-room to test the relative strength of foundation fastened in the two ways. I took a strip of our thin surplus, 4 in. wide and about 17 long. This I cut into squares. Now, then, I welded together two of the pieces so that one side and one end lapped together. The welding was accomplished simply by pressing the lapped ends so they were, so to speak, firmly fastened. After warming the strips a little and putting the ends between a couple of grippers, I pulled to see which half of the foundation would stretch first. Of course, I expected that the foundation as shown in the cut opposite would stand the greater strain; but in this I was disappointed. I could detect no appreciable difference, after many trials, in the strength of either. Possibly in the hive, when the comb is drawn out, there may be a difference. Theoretically, the facts as stated above ought to be true. Have any of our readers tested this matter in the hive—that is, by making comparative tests by putting sections into the super with foundation fastened both the right and the wrong way? I know that Cheshire and the Dadants mention this in their works. Perhaps the Dadants can give us a little more light on the subject.

E. R.



## A SMALL THIRD SWARM.

REPRESENTATIONS OF THINGS TRUE TO NATURE.

If there is one thing above another with which we have taken particular pains, it is that all our engravings supposed to repre-

ject which they so poorly try to show! Yet it is nevertheless a fact that there is not a real good engraving of a queen-bee, although we think we have one in the A B C book that is fairly lifelike. In the accompanying engraving our artist has succeeded



A LITTLE SWARM OF BEES, JUST AS THEY LOOK AND ACT.

sent nature in any of its phases shall be true to life. How provoking it is that there are so many engravings of queen-bees that look as much like a beetle as they do the real ob-

ject admirably in showing a small third swarm. Most of our readers will instinctively recognize something familiar in the pretty little scene. While the individual bees



themselves are not exactly typical Italians, yet the cluster itself, the position of the wings, and the manner in which they are hanging together, to say the least, is real and lifelike. I wish to call particular attention to the bee on the extreme end of the broken twig on which the bees are clustering. Every bee-keeper will recognize something in that little individual, strikingly natural. The bees on the wing are not as true to nature as they might be in some cases, but they are very good. It does not take a great stretch of the imagination to think of this as a third swarm, possibly having a virgin queen somewhere in the outer edges of the cluster. Naturally enough, they have clustered on the end of a little twig of a tree so highly prized by the bee-keeper; namely, basswood—or, as some of our friends term it, the linden. Not more natural or more true to nature is the cluster of bees, than the basswood leaves. See! Here and there is a leaf with torn edges. How natural! Yes, and just a little beneath the cluster is a basswood blossom. These facts would show that the engraver had some idea of the eternal fitness of things when he made a little swarm come out and alight on a basswood limb just when such a swarm might be expected—that is, when basswood was evidently in its height, as indicated by the blossom shown a little below, at the left of the cluster.

The swarm was so small as to be unnoticed by the apiarist; but his wife has seen it, and, tugging him by the arm, points to the twig twenty or thirty feet, perhaps, above the ground. The swarming-device is handy, and his assistant has ready at hand one of the indispensables of the apiarist—a ladder. The little swarm is not worth much, but then they are evidently pure Italians, and he will make a nucleus of them. Off in the distance is a well-kept apiary; and at the right, a beautiful home. Whether these are all adjuncts of one establishment, our silent engraver will not tell us.

By way of explanation we may as well say that our artist having run across a beautiful print, evidently the handiwork of a German engraver, forwarded the same to us. We were so struck with its natural, lifelike appearance, that we returned it to him with instructions to engrave it as faithfully as he could. The original artist was evidently a bee-keeper, for how could he have made the cluster and the basswood leaves so lifelike if he were not? Our engraver who reproduced it, with some slight suggestions from ourselves, is also a bee-keeper, and the engraving attests how well the work was done.

#### VOLUTION OF THE QUEEN IN EGG-LAYING.

DR. MILLER ARGUES FOR THE COMPRESSION THEORY.

I THINK it was Quinby, supported by Wagner, who advanced the idea that a queen lays worker eggs in worker-cells because of the mechanical compression in the smaller cell; and in the larger drone-cell, there being no compression, the egg is left unimpregnated. But the reply was made, that

eggs are often laid when the bees are building comb, in worker-cells so shallow that there can be no compression, and impregnated eggs are laid in queen-cells, which are still more roomy than drone-cells. Cheshire ridicules Quinby's idea as "a bold guess made long ago by an American apiarist of just repute, though but little acquainted with scientific matters." But Cheshire does not very distinctly state what he does believe. Indeed, it is a little difficult to tell just what is believed by the authors of our bee-works, for most of them speak in a rather vague way. A. I. Root, an author not given to vagueness, says in his A B C: "I can not but conclude that the queen knows when an egg will produce a drone, and knows just what 'wires to pull' to have every egg laid in a drone-cell produce a drone. I think it very likely the workers have something to do with this matter, but I have never been able to make out by what means they signify to the queen that some eggs in drone-cells or even in queen-cells would be desirable."

Dzierzon says: "We must, in any case, assume that the queen possesses the instinctive power to lay fertilized eggs in small cells and unfertilized eggs in large cells," while his English translator, C. N. Abbott, advances the suggestion that internal pressure has something to do with it, and "that the accumulation of eggs in the ovaries enlarges them and causes sufficient pressure to secure their fertilization as they pass the spermatheca." The revised Langstroth, while rejecting the compression theory, says: "Yet it is very difficult to admit that the queen is endowed with a faculty that no other animal possesses, that of knowing and deciding the sex of her progeny beforehand. It seems to us that she must be guided by her instinct."

Prof. Cook is not vague at all, but distinctly gives his belief that the queen controls the whole matter by an act of the will. He strongly fortifies his position by saying, "The Baron of Berlepsch has fully decided the matter. He has shown that old drone-cells are as small as new worker-cells, and yet each harbors its own brood." Prof. Cook further argues: "What gives added force to this view is the fact that other bees, wasps, and ants, exercise the same volition, and can have no aid from cell-pressure, as all the eggs are laid in receptacles of the same size."

In the face of all that has been said on the other side, it may seem presumptuous to attempt any defense of the old theory of Wagner and Quinby, that compression of the queen's abdomen decides the sex of the egg as it is laid in the cell. Still, I suppose I may raise the question whether it has not as much show of reason as any later theory. The sweeping objection to the compression theory is, that impregnated eggs are laid in worker-cells when the cell is barely commenced, "so that pressure can not be exerted," says Cheshire—"in which no compression can take place," says Dadant—"where there could be no pressure," says Cook. Is there not an entire misapprehension here? Surely Wagner and Quinby could not have meant that the diameter of the worker cell was less than the diameter of the queen's abdomen, and that the abdomen had to be compressed each time into smaller dimensions to allow it to enter the cell. Is it not reasonable that the different position that must be taken in the smaller cell causes compression? Did you never notice the small boy who has been in-

dulging too freely in green fruits? He finds relief in compression of the abdomen, which he secures by simply bending forward. When the queen lays in a worker-cell, she bends into something like a right angle. May not that position have a mechanical effect in some way to secure the impregnation of the egg? When she lays in a drone-cell her position must be different, for the cell is deeper and wider. In the Revised Langstroth it is suggested, "It is possible that the width of the cells and the position of her legs when laying in drone-cells prevents the action of the muscles of her spermatheca."

It is not impossible that exactly the same compression may be caused in a shallow cell barely commenced as in one full depth. If an egg is laid in a shallow cell, does not the queen bend into just as sharp an angle as if the cell were full depth? and is she not bent the same way in laying in a queen-cell? for I think she never lays in queen-cells of full depth. But, how about laying in incipient drone-cells? Does she lay in drone-cells less than full-depth? If so, might not the width, as suggested by Dadant, have a mechanical effect? But if the width makes drone eggs, then the greater width of the queen-cells ought to make the eggs *drone* still. I don't know what reply can be made to that, unless it be that we know very little about it, only that in some way the peculiar position essential for impregnation may be secured both in the worker and queen, but not in the drone cell.

Prof. Cook presents an argument that at first sight appears unanswerable. He says: "What gives added force to this view [the volition of the queen] is the fact that other bees, wasps, and ants, exercise the same volition, and can have no aid from cell-pressure, as all the eggs are laid in receptacles of the same size."

But, do they exercise the "same volition"? That word "same" is begging the question. Do they exercise *any* volition? Even if the receptacles are of the same size, and if it is fully proven that there is no compression of any kind, does that prove that there is any volition? The common fowl lays eggs of both sexes in the same receptacle; but has she any volition in the matter? Of course, I know that the impregnation is different in the two cases; but is volition proven in one case any more than in the other? If the answer is, that for any thing we know there may be some volition in the case of the fowl, then, I ask, is there any volition in the case of the human race? And now I fancy I see that good-natured smile on the face of the professor as he asks, "Do you think, now, really, that all the force is taken out of my argument?" Candidly, I don't, professor. I confess it leaves it rather bad for the compression theory, but, just as much, it leaves your volition theory "not proven."

"The queen sometimes lays worker eggs in drone-cells." Does she? In regular drone-cells? I beg your pardon. As A. I. Root says in the A B C, "The mouth of the cells will be contracted with wax," and I think no worker egg is ever laid in a drone-cell without the cell being first cut down in depth, and the diameter of its mouth contracted. Dadant says: "This contraction of the cell-mouth seems indispensable to enable the queen to put in motion the muscles of her spermatheca."

Now comes Prof. Cook's clincher. He says the Baron of Berlepsch has fully decided the matter. "He has shown that old drone-cells are as small as

new worker-cells, and yet each harbors its own brood." Now, if that proves any thing doesn't it prove too much? If the queen by her volition puts a worker egg in every cell of small size, certainly she would do so here where she finds cells as small as new worker-cells, even though they may have formerly been larger. But I suspect there may be a mistake here, even with so great an authority as Berlepsch back of the statement. Were these cells as shallow as worker-cells? As the bottoms of cells become filled with cocoons, the bees prolong the cell-walls at the mouth, making old cells as deep as new. Moreover, a close examination of old cells will show that the narrowing toward the mouth becomes less and less till the outer edge which has been freshly prolonged can have no narrowing. Suppose, however, the cells should be found just as small at the mouth—in other words, "as small as new worker-cells," then we have precisely the case already spoken of where the workers have made a heavy rim of wax, and in that case we know that worker-eggs are laid.

Taking all these things into consideration, does it not look more reasonable that the mechanical effect of position rather than the will of the queen decides the sex of the egg? There certainly appears to be some volition on the part of the workers, for they make desperate efforts to secure drone eggs at certain times, while at others the drone-cells are as carefully avoided; and it is possible that the queen leaves the matter entirely in their hands, but it is equally possible that she has a will in the matter also. That will, however, goes perhaps no further than to select a cell which by its size or shape decides the sex of the egg. If you say that she wills a worker egg, and makes the necessary muscular effort for its impregnation, the question may be asked, "Why does she not fill a drone comb with worker eggs at a time when drones are not wanted, and give the workers the wink to build wax rims around the mouths of the cells instead of first waiting for them to make the rims? Or, when she is so anxious (if it is she and not the workers) for drones that she will go two combs outside the brood-nest to find a little patch of drone comb in which to lay, why does she not use her will power to lay drone eggs in some of the worker-cells? If she is too intelligent to lay drone eggs where she knows they would not have room enough to grow, why does she not lay drone eggs in some of the incipient queen-cells where they surely would have elbow-room?"

C. C. MILLER.

Marengo, Ill., July 20.

Look here, friend M. I do not know that I can help you just now in this matter you have so well summed up and arranged; but I think I can push you out into still deeper water if there is where you want to be. You have not said any thing about the experiment of removing eggs from worker-cells to drone-cells, and vice versa. As this always results in having the egg produce exactly what it would if it had not been removed, it will rather help your position. But we have another suggestion from one or more writers. This is, that the worker bees manage the whole thing by performing some sort of operation on the egg, or possibly giving the infant bee something, or withholding something just as soon as it has broken the egg-shell. Perhaps the proper kind of medicine is put around the egg to change it just be-



fore the egg-shell breaks. In that case the worker bees have entire control of the matter of sex. You know there was quite a stir made a few years ago because some one suggested that the bees have the power of making eggs laid in the worker comb produce drones when it becomes desirable to do so. For instance, if you take a frame of worker comb containing eggs in worker-cells and nothing else, and put it in a queenless hive, more or less drones will be found emerging from worker-cells; whereas, had the frame been left in the hive where the eggs were laid, there would have been no drones at all. Some of the "big lights" sat down on us rather heavily because we insisted that such was the case. Now, doctor, if you never tried the experiment, suppose you do so. If the worker bees can make a worker egg produce drones when it seems desirable, it will have quite a bearing on the point you have started.

## REVIEW OF DR. MILLER'S ARTICLE, PAGE 445.

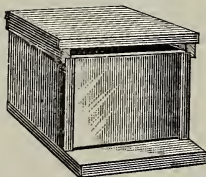
### DEEP SPACE UNDER FRAMES.

I HAVE only failure to record with any thing over  $\frac{1}{2}$  inch under frames. Comb is either built down to the bottom-board, or knobs and pinnacles of comb are put on the bottom-board to bridge the distance. I do not think the doctor will find any help from wide or thick bottom-bars. I have in use bottom-bars 1 inch,  $\frac{3}{4}$ , and  $\frac{3}{8}$  wide, and  $\frac{1}{4}$ ,  $\frac{3}{8}$ , and  $\frac{1}{2}$  inch thick, and I much prefer a bottom-bar  $\frac{1}{4}$  or  $\frac{3}{8}$  wide by  $\frac{1}{4}$  inch thick, to any other, as it is so much easier to put such a frame into a hive and take it out without crowding or killing bees; and I am not sure, but I think comb is built down to it closer than one wider. All we need of a bottom-bar any way is to keep the two end-bars in place, and serve as a check to the bees in building comb downward.

### COVERS.

I have used flat covers for years, but I can not say I am pleased with them, for just the reasons mentioned by the doctor;

i. e., the twisting and warping so as to let cold wind blow in when we want every thing snug and close. If it were not for the weight and awkwardness of the old Langstroth cap, I would adopt it at once; but it is awkward,



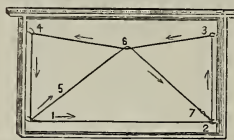
HATCH'S HIVE-COVER.

clumsy, and expensive, and also must have a cleat all around the hive to support it, which adds to the cost and takes up so much room in the cellar during winter; also fills a wagon to no purpose if you wish to haul hives or bees. I have used a modified style of this cover, or, rather, a modified Simplicity, a few for several years, and have 70 of them now. They give so good satisfaction that I am willing to call it the best cover yet. The top should be made of two pieces, and covered with tin well painted. The rim is 2 inches deep, and rabbets  $\frac{1}{2}$  inch by  $\frac{3}{8}$  inch. It should not fit too close, so as to allow for the swelling and shrinking of the hive. No shade-board is needed with this cover, but the frames must be covered with a cloth or enamel cloth (I prefer the latter) to keep the bees out of the  $1\frac{1}{2}$ -

inch space above the frames. With a flat cover such as the Dovetailed hive has, I have not been able to dispense with a shade-board, and really that cover is the only fault I have with the Dovetailed hive, and my home yard is provided with them now, 10 frames to the hive, however. No more 8-frame hives for me.

### KEENEY'S PLAN OF WIRING.

C Wiring frames has never been a hobby of mine;



HATCH'S IMPROVEMENT ON have concluded that

### KEENEY'S PLAN OF

### WIRING.

wires may be left out, and yet the foundation is held in place all right. This allows all the wiring to be done with one piece of wire, which saves all of the time of splicing and fastening, which comes so awkward to clumsy men's fingers. The inclosed diagram will show how I mean. At first I thought the other diagonal wire was the one, if any, to leave off; but experiment proved I was wrong.

### ARRANGEMENT OF HIVES.

The plan of the doctor's, of setting four hives in a cluster, is all right for compactness. I tried it at first and found it was all right as far as the bees' interest was concerned; but there is no quiet alley for your wheelbarrow and tool-box to stand in; and the hive that stands just in the rear of the one you are at work with is almost sure to get stirred up and to put in a pointed protest, while the one at the side of the one you are at work with, facing the same way, I mean, if it does show irritation can be very quickly quieted by a whiff of smoke at the entrance, for you are in just the position to see them and throw in that aforesaid quieter. See, doctor? As to bees from the other row annoying, 7 feet away will be found ample room for them to get over the doctor's head, even if he has one of his three-sided stools to sit on, and is at the top notch of it.

C. A. HATCH.

Ithaca, Wis., June 20.

Thanks, friend Hatch. You have given us just the facts we have wanted to know more about. The fact that the bee-space under the frames is a failure in one or two instances is worth scores of others proving that the bees did not fill this space with burr-combs. Dr. Miller, a short time ago, you remember, reported that they were a failure with him almost the first thing in the season.—I do not know but your point about narrow bottom-bars is well taken; and it would be, perhaps, worth our while to consider it. Who else can give us some facts from experience on this point?—Now, friend H., I do not like your cover. We have used virtually such a one for a good many years in the shape of the old Simplicity. I can not see any use in having this inch or  $1\frac{1}{2}$ -inch space above the frames. It necessitates the use of enamel cloth, or some sort of covering. The more we use the flat cover, the more we like it. So far, in a year and a half or two years, we have had no covers that wind, that were properly made. We paint our covers on both sides;

and we do not want any more of them, as I explained to Dr. Miller some time ago, covered with tin. If the ends are let into the grooves in good substantial cleats, there will be no warping. It is true, there may be, in time, a little winding; but if there should be, the high corners can be leveled up by putting the cover under a weight in such a way as to bring them back to position. With thick top-bars, and no enamel cloths or other covers, to my notion we shall have all that can be desired. Referring again to the winding, your cover will not be entirely proof against it, I think. Our old Simplicity covers that have been used for some seven or eight years have begun to show this undesirable feature somewhat, and I can not see how a cover cleated all around is much better than one cleated on two ends, in this respect.—I like your improvement on the Keeney method of wiring. I can not now imagine why I didn't think of it before. In making the engraving I gave instructions to make the point 6 toward the top of the frame instead of toward the bottom, as you made it in your drawing. Six is very securely braced, and will prevent the sagging of a thin top-bar. It is at this point where most of the heavy strain comes. The horizontal wire 1 and 2, when reversed so as to be parallel and immediate to the top-bar, will not hold as great a weight as the wire braced as at 3, 6, 4; 1 and 2, immediate to the bottom-bar, is not required, usually, to support any weight of honey, so I should prefer to begin at No. 1 to bring point 6 next to the top-bar, rather than to bring 6 near the bottom-bar. I understand the reason why you prefer to have the horizontal wire near the top-bar; and that is, to keep the foundation from folding over, which it is liable to do if wired as shown above. But to prevent this, cut a wide groove on the under side of the top-bar, and push the end of the foundation up into said groove. Then imbed the foundation on to the wires. We have tried frames wired as above, and they worked beautifully. Our thanks are due to you, friend H., for suggesting the use of one wire only. I believe it will be strong enough for all purposes; and it is at a considerable saving of time over the two-wire plan.—Let us hear from you oftener, friend H., by way of criticism or otherwise. Your pen smacks of experience.

E. R.

#### ANOTHER METHOD OF GETTING BEES OUT OF BOXES.

##### NO USE FOR HONEY-BOARDS.

I SEE quite a good deal in GLEANINGS about getting bees out of boxes or section-cases, bee-escapes, thick top-bars, etc. I will try to tell you how I have managed for some years past to get bees out of surplus cases, not to have any robbing, and but few stings. I commence to take off honey any time when it is warm enough for the bees to fly nicely. I start the bees down with smoke, then take off the case quickly, turn it over on my left arm, and brush them with goldenrods when in bloom. The bees don't seem to get cross when brushed with goldenrod tops. I brush the bees from the

lower side of the case down in front of the hive; then set the case on a stand near the hives I take the cases off from, and pile them up as high as convenient. I have an empty case with thin muslin tacked on the top, which I keep on the pile of section cases. I keep right on taking off cases until I get off all I want at that time. If it is off from a hundred hives it would be all the same. Then if the bees are lively I can go to the first pile with brush in hand, take off the muslin case and brush the bees from the top of the honey-cases and give the muslin case a quick shake and put it on the cases and go to the next pile; and in a short time I have the bees all out without any robbing or stings. If there happen to be brace-combs, so much the better, for the bees will go for the honey and seldom uncup the honey in the sections. The same is true of the frames I have been using lately. They have thin top-bars plump  $\frac{3}{4}$  inch thick. That accounts for the brace-combs on some hives. Now, I have tried a number of different ways to get bees out of sections; but the way I have described above suits me the best.

##### THICK TOP-BARS.

I wish to write a little about thick top-bars, so I will go back a little. I have been keeping bees nearly 24 years. I was first attacked with the bee-grip in 1866. While I was working on a farm near Davenport, Iowa, I happened to be at one of my neighbors in harvest time. At dinner they had some genuine clover honey on the table. He kept 30 or 40 hives of bees in Langstroth hives. He had Langstroth's book on bees, which I read some that noon. In the fall I was at Davenport at the county fair. There I saw the Child's patent bee-hive. I was taken up with it so much that I invested \$30 in rights, etc. I use the hive now to store bee-papers in. I should like to give you a little of my experience with that hive, if I had time. I made some hives with frames that hung on hinges; and to handle them (as there were no projections) I made my top-bars  $\frac{3}{8}$  inch thick, with a groove on each side, made with a round plane. I don't remember of ever being bothered with brace-combs. My top-bars were always clean. I had a plump  $\frac{1}{4}$ -inch bee-space between sections and hive. I have used thick top-bars most of the time since I have been keeping bees.

I believe the queen-excluders are a good thing, but I have no use for break joint honey-boards. Perhaps I should have both on hand now if I had not used up my surplus change in two trips to Florida and one to Cuba. For the past three or four years I have got the most honey with the least work and the least stings I have ever got. I have never failed in getting some honey to sell since I have been keeping bees. I never have fed 10 lbs. of sugar to get one lb. of honey. This is a poor section for white honey. It is a buckwheat and goldenrod section.

The honey-case I am using at present suits me best of anything I have ever had. I can put on 23 sections with separators, or 32 without, or half the number if I wish. I used to dread to clean up sections for market, but the way I have them now it is a pleasure. This year I have sent sections to market that were nearly as clean as when they were put on the hives. I have a wide frame that holds four sections. When the sections are full they will weigh exactly 1 lb., without glass. They are held in the frames with a thin wedge or a couple of wire



nails. They want a little play, say  $\frac{1}{8}$  inch or  $\frac{1}{4}$ , to come out easily. After I put the sections into the frames I don't take them out until I send them to market.

BEN. FRANKLIN.

Franklinton, N. Y., Feb. 1.

Friend F., your plan of getting bees out of boxes is substantially the same as I described a year ago, while on a visit to Dr. Miller, if I am correct. Thanks for your suggestion of a good use for patent bee-hives. Keep them for storing bee-papers.

### ARE BEES TAXABLE PROPERTY?

SOME GOOD ARGUMENTS IN FAVOR OF TAXING THEM.

*Friend Root:*—I see, in reading over GLEANINGS for July 15, 1890, where Jas. R. Whipples asks the question whether all bees are taxed (or, in other words, assessed). I will say that, to the best of my knowledge, they are not, especially here in Wisconsin. I am well convinced that it is not a State law, but done by officers of the different townships. One illustration will convince any one. In the town of Boscobel, where there are quite a number of apiaries, all No. 1 swarms are assessed two dollars each that are owned on the first day of May. But in the town of Marion, just south of us, bees are not taxed at all.

Day before yesterday I had a short conversation with Mr. France, of Platteville, Wis., and this same subject of taxation came up. He told me that a part of his bees were assessed and a part not, all owing to the different townships they were located in. So you can see that it is governed by the several townships instead of the State. But if I had my own way about taxing bees, you may rest assured I would assess every one of them. If a man has \$500, or \$1000, and perhaps much more, invested in bees, tax them just the same as sheep, cattle, horses, or, in fact, any other kind of property; and in my opinion, when this is universally done there will not be as much fault-finding by parties who are not in the business; and if litigation should arise, I am sure that it would be much more difficult to declare them a public nuisance than if they were exempt from taxation; and my advice would be to insist on an assessor listing them every time. B. E. RICE.

Boscobel, Wis., July 20.

### AGAINST TAXING BEES, BUT IN FAVOR OF TAXING HIVES AND FIXTURES.

On page 531, current volume, Mr. Jas. R. Whipples seeks information of you as to whether bees are assessable property in the different States. No more important question is presenting itself to our fraternity. For 25 years no assessor in our district has had the audacity to assess bees; but I am now surprised by a ticket being presented for last year's assessment, made in my absence. Custom makes law, therefore it is against the law in this State, without a special statute providing for it. I know what has been your position in the matter; but, while no one respects your judgment more than I, I feel that I shall be supported by the majority of bee-keepers in this position; viz., that bees come under the head of wild animals, uncontrollable, and very greatly subject to the vicissitudes of climate and disease. An apiary may be assessed in March; in May, not a bee may have survived. Where is the

justice? I, for one, say assess hives and fixtures, but not the bees. I propose to make a test case of it in this State, and to call upon brother bee-keepers in the State to aid me. J. C. CAPEHART.

St. Albans, W. Va., July 24.

Friend C., we would advise you to read the article at the head of this. If you class bees as wild animals, uncontrolled, and exempt from taxation, town councils might then with some justice declare them to be a nuisance. No, sir, friend C., let us pay taxes on our bees, and consider them as animals under control, like any ordinary stock. If any disgruntled neighbor wants them removed, you can then declare them property, like any other property, because you pay taxes on them.

### FIXED DISTANCES IN ENGLAND

INDISPENSABLE, AND WHY NOT IN AMERICA?

*My Dear Friend:*—For by that title I assume to address you, though I have never before written to you; yet, as a fellow-apiculturist, I claim the right. I have of late had the opportunity of reading GLEANINGS (i. e., since the departure of my friend W. B. Carr for London, and my taking the house till then occupied by him), and I am not a little exercised at the discussion which appears therein about "spacing of combs." In this country the custom is, almost universally, to use metal ends to space the combs; and the convenience of them is something to be wondered at—no shifting of combs when lifting—great security when moving the hives to any distance, as, instead of an inch bearing at each end of top-bar there is a bearing of  $1\frac{1}{8}$  inches. Why, then, I ask, is it that in your country you appear to ignore these very useful adjuncts to the apiary? With the metal end known as the W. B. C., it is possible, without removing the end from the frame, to get any distance from  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches, and this, I take it, is as much as is required by any apiarist. It seems to me, at this distance, that Dr. Miller is somehow considerably prejudiced against ends of any description; and though in his discussion pro and con, page 451, he has endeavored to argue the point out without bias, he seems to me to be unable to quite get rid of that prejudice.

Further, it seems strange that you on your side should now be going over and over again, grounds that were here settled years ago.

In conclusion I would say, let ten or more American apiarists each work, say, three hives with W. B. C. ends for a season, and then report fully what advantages and disadvantages they found from their use, and I am inclined to think that A. I. Root and others will have to stock another article. HAROLD H. LINDON.

Liverpool, Eng., July 7.

We are very glad to get your testimony, friend Lindon. We were well aware of the fact that your countrymen used, generally, fixed distances, though we have not called particular attention to it, because national peculiarities and climatic conditions might not argue for it in this country. Still, if fixed distances are necessary with you it would seem that they would be almost indispensable in America, with its many systems of out-apiaries, necessitating, as they do, more or less moving of bees. Thanks

for calling attention to the W. B. C. metal ends. We will try to illustrate them soon.

### BROOD-COMBS.

#### OBJECTIONS TO THE WIDE SPACING OF BROOD-COMBS.

THE following article we take pleasure in copying from the *American Bee Journal* of July 19. The arguments presented for 1½-inch spacing are convincing.

I have watched with great interest for the replies to Dr. Miller's articles on page 214 and 365, relative to the proper spacing of brood-frames. If the doctor holds himself in readiness to be convinced by the reports of the box-hive men, I have no doubt he will adopt the 1½-inch spacing. The bees evidently plan for a large amount of store-room above the brood, and as a consequence the combs in box hives and hollow trees will usually be found to average 1½ inches from center to center. Thick combs above necessitate wide spaces between brood-combs below, and I have no doubt that, in a state of nature, this is the best possible arrangement for safe wintering. But when bees are wintered in the cellar or in chaff hives, I am of the opinion that this matter of close or wide spacing cuts a very insignificant figure.

I am fully satisfied that wide spacing is "nature's way," and I am just as fully satisfied that I can not obtain the best results in comb-honey production by following it.

Three years ago, when I adopted the Van Deusen metal corner for brood-frames, I adopted the 1½-inch spacing with it, for the irons were not then made any other width; but the stern logic of facts has compelled me to go to the expense and vexation of changing to a closer spacing. Now let us see why:

Since brood-comb is only about ¾ of an inch thick, the 1½-inch spacing permits a considerable thickening of the upper part of the comb for storage purposes. If the whole upper part of every comb were equally thickened, no great harm would be done, but such is not the case. All conceivable varieties of thickness and thinness occur, the undulations of surface on each comb conforming to those adjacent combs, rendering it, in many cases, impossible to change the relative position of combs in the hive. Such combs will not fit anywhere, only where they were built, unless they are shaved off, and who wants to handle frames under such conditions?

The next difficulty with the wide spacing is a little more serious, for it affects the brood-rearing capacity of the comb. Every bee-keeper knows that worker-brood is seldom if ever reared in cells more than seven-sixteenths of an inch deep; and it is evident that, the greater the area of thickened comb, the smaller the brood area will be. Colonies that have a tendency to store honey in the brood-chamber will thicken an undue proportion of their combs, thus restricting the queen to the lower part of the central combs. It is useless to argue that the bees will cut these cells down when needed again for brood—they will not do it, as I have learned from sad experience. There are many combs in my hives, that, by improper reversing, were made thick at both top and bottom. In the center of these combs is an oval area of brood comb that comprises probably one-third of the entire area of the comb. This is the second season they have been in that condition, and I can not determine that the bees have cut down a single cell for the purpose of brood-rearing.

A third objection to the wide spacing is, that, so long as the bees are amply provided with storage comb in the brood-chamber, they are slow to enter the sections. The reasons are obvious. The limited brood area has reduced their numbers, and an ample supply of honey in the brood-chamber has removed all anxiety to provide further for the future.

At my earnest solicitation, the width of the Van Deusen metal corner was reduced to one and eleven thirty-second inches, and hereafter all my brood-combs will be spaced that distance from center to center. Whether that is just the right distance or not, I do not pretend to say; but I know from pre-

vious experience that it suits me much better than the wide spacing.

Z. T. HAWK.

Denison, Ia.

Mr. Hawk's experience re-echoes our own, except that we find that sealed worker-brood is about an inch thick. However that may be, Mr. H.'s point (that *more* brood can be reared on narrow spacing) is well taken. The fact that brood is not raised in deep cells is a pretty convincing argument for the narrow spacing.

### WOODMAN, SPARE THAT TREE.

#### THE ENORMOUS CONSUMPTION OF BASSWOOD IN OTHER DEPARTMENTS OF TRADE BESIDES THE BEE-BUSINESS.

I READ the article on page 490, entitled "Woodman, Spare that Tree." While it is a fact that our basswood forests are being rapidly destroyed, friend Markly probably is not aware that the uses he mentioned for basswood cut but a very small figure in its destruction, if taken alone. All of this part of the State of Wisconsin has been a heavy basswood region; and but a few years ago, before the destruction of the pine forests, basswood was held as of but very little value. But as soon as pine timber became scarce, basswood began to be used for flooring, for sheeting-boards, for siding, scantling, and general building purposes. Then came its use for barrel-staves and heading, for wagon-boxes and other light upper work for buggies; for berry-boxes and crates; for excelsior; for the veneer-mill for the manufacture of material for shipping plants, etc. After every large tree had been cut for these various purposes, the small trees came in for making broom-handles. This is only a partial list of its uses. You will see that the bee-business takes but a small portion of the amount consumed. It is estimated that, within a radius of a few miles around here, the yearly consumption of basswood for the various purposes mentioned amounts to over twenty million feet annually, until now basswood-trees are few and far between. If other woods were used, whitewood and poplar would take the place of basswood, and make just as good sections.

Another thing to be considered is, that until recently cattle have been allowed to run at large, and these are very destructive to young basswoods; in fact, it is almost impossible to find young basswoods growing where cattle run. Now that cattle are restrained wherever we go, we find young basswoods growing thickly, and in a few years (unless wantonly destroyed) they will take the place of the old crop of trees already cut, and gone. A few days ago I went into the woods for the purpose of getting at the facts, and I counted about 40 trees from 2 to 4 feet high on less than an eighth of an acre, so that, while basswood honey will be scarce for the present, the young trees will take the place of the old ones in the near future; then after all it may not be looked on as a thing of the past, for basswood-trees grow rapidly, and bloom quite young, possibly in six or eight years from planting.

Clintonville, Wis., July 13.

DANIEL NOBLE.

Friend N., I am glad you have taken up this matter of keeping cattle away from young basswood-trees. Bee-keepers who own basswood timber should by all means keep their cattle out of the woodland. The



value of the food for pasture is but a small item compared with those trees. They grow so rapidly that it is going to be one of the most promising trees to raise for timber. Many of ours planted, 18 years ago, would now make a nice lot of sections, and cutting them off would harm the root scarcely at all, for young shoots start out with astonishing rapidity, and these young shoots produce both blossoms and timber in a very few years.

### SPRAYING BLOSSOMS, ETC.

#### ANOTHER CAUTION IN REGARD TO THE USE OF ARSENITES.

GEO. E. HOVEY, Holland, Lucas Co., Ohio, has a cranberry marsh. The blossoms are still attracting the bees, but the cranberry fruit-moth is already engaged in laying her eggs. He wishes to know if he may spray his vines with the arsenites while the bees are still at work. I should advise never to spray any blossoms on which bees work. It is never safe. The fact that both brood and mature bees are poisoned by such a course makes it seem dangerous to do this. Who knows but there may be enough poison to make the honey poisonous to man? I should not wish to purchase such honey. In most cases it will be time enough to apply the poisons after the blossoms cease to attract the bees. I would advise Mr. Hovey to try the kerosene emulsion. Very likely that would be as effective as the arsenites, and that would be safe. If that does not kill the larvæ I would suggest the use of buchach. These would very likely effect a remedy for the pests, and they certainly would do no harm.

#### THE CALIFORNIA BEE-KILLER.

Some years ago the late Mr. Enos sent me a curious animal of the scorpion group, which he stated was a serious enemy of the bees. Except it is so rare it would be a terrible pest. Now, Mr. R. A. Hadly, of Fillmore, Ventura Co., sends me another of the same species. He says he had kept it for some days, and fed it on bees. It ate nine in one day, and some of these were drones. He says, "I put several bees into the cage with it, but I suppose they will all be disposed of before it reaches you."

Mr. H. was quite correct. The bees were all devoured, and the datames was dead. Indeed, it looked lank and shriveled, and as though it really died of starvation, which I dare say was the case. I have described this curious animal, with illustrations, on p. 431, last edition of my Bee-keeper's Guide. The excellent cut—Fig. 221—gives a very correct idea of this strange specimen. I named it the California bee-killer. It is a datames, possibly *Datames Californicus*. It seems to have four jaws. Each jaw is divided horizontally, and these peculiar pincer-like jaws—see figure in bee-book—are very formidable-looking organs.

This unique specimen belongs to the spider subclass, as is seen by its eight legs, simple eyes, and the absence of antennæ. Its long-jointed abdomen and palpi, which look like a fifth pair of legs, place it in the scorpion order, or pedipalpi, so named because the palpi resemble true legs. Thus the species and its group are related to the scorpions, whip scorpions, of which we had so much last year, and the harvest-men, or grandfather graybeards. The family is *Salpurgidae*, a small and little-known

group. One, *Datamis pallipes*, is said to feed on bed-bugs, while we know that the species in question feeds on bees. The habits of the others have not been described.

A. J. COOK.

Agricultural College, Mich., July 8.

### SELLING SECRETS FOR A SUM OF MONEY.

#### A FURTHER CONSIDERATION OF THE SUBJECT.

THE amount of correspondence, pro and con, in regard to this matter seems to call for something still further on this subject. I may say, however, that the greater part of the communications indorse the stand taken by GLEANINGS. Perhaps half a dozen letters have been received on the other side all together; and of those half-dozen, at least four are from ministers of the gospel. These are more lengthy than the others, and some of them take GLEANINGS to task quite severely. Please let me give you a little of my experience in purchasing secrets.

When I was a boy in my teens, away from home, I met an agent who had a wonderful secret for making burning-fluid. To show me that it was non-explosive he unscrewed the top of the lamp, plunged a lighted match in it, rolled the lamp on the floor while burning, and performed various other tricks, until I was so excited that I gave him my watch, all the money I had in my pocket, and would probably have given my boots too had he not said that, under the circumstances, he would let me have the secret without them. When I went to a druggist to have it put up he told me that my compound was simply ordinary camphene. Some annotto was added to make it look yellow like oil, and some alum was put in to make it *non-explosive*, which did nothing of the kind. The camphene would explode, exactly like any other camphene or burning-fluid, when the lamp was nearly empty, as I demonstrated to my sorrow, before an audience of people. A lamp filled with any thing can not explode. The agent who took my watch and money falsified, and humbugged me in every particular.

Some years afterward, when I was a jeweler carrying on a shop of my own, a smooth-tongued chap came into the store with a piece of common iron rod for a cane. On the end of this rod was a coating of silver, perhaps as thick as a silver dime. He informed me that he had a secret for silver-plating that would put silver on to iron or any other metal, in any desired thickness, in a few minutes, and that the silver tip on his iron rod was done by the process. I became excited as before. As I hadn't very much money I scraped up my money and valuables in the attempt to raise \$50.00 to buy the secret. Remembering my former experience, however, I made a bargain before witnesses, that, after reading over his recipe, if I did not consider it reasonable he was to let me off, or coat the other end of the iron in a like manner right before me, and show me how it was done. He was going to put the things in his pocket, but I bade him hold on. When I came to read

the secret I found that it was something known to jewelers for years, and was what is familiarly known as the "cyanuret" process. My indignation arose at once. I told him before the witnesses that he was a swindler, a liar, and a thief. May be I was not Christianlike, but I did not profess to be a Christian at that time. He told me quietly to be careful what I said, and was so gentlemanly about it that I began to fear I had made a mistake. Finally I said, "My friend, when you came here telling me you put that silver on the iron rod by that process, I think you told me a deliberate falsehood; but to settle the matter I will give you \$100 if you will coat the other end of the rod in a like manner, by the same process, and you may have 24 hours instead of 15 minutes to do it in."

He very smilingly told me it would afford him the greatest pleasure to show me my mistake and to accept my apology, and bowed himself out with such composure that I was in great trouble for fear he should succeed. He said he would go to the hotel and get his apparatus. I watched nervously for his return. In about half an hour a neighboring jeweler came to the back door with \$25.00 in his hand, saying he had got it all ready to hand to an agent for a silver-plating process, said agent representing that I had just paid him \$50.00 for a shop-right for the same thing. My neighbor said that he had almost handed the money to the agent, for the man seemed so honest and straightforward; but to be perfectly sure, he told him he wanted to go out the back door for a few minutes. I was in a fighting mood by this time, and together we started for my neighbor's shop. The man stood in the door; but when he saw us both coming at a rapid rate, he put off at such a lively speed that we gave up the pursuit. Now, for more than thirty years I have had similar experiences. Some of our readers know that I have paid out money again and again to see if there were any honest men selling secrets. Many of you remember our friend H. H. Flick who had a recipe for artificial honey. I paid him \$2.00 for it, and then found it was the same thing that has for years been printed in Dr. Chase's recipe-book. I have talked the matter over with Prof. Cook, with the presidents of our horticultural societies, and with those who have charge of our experiment stations; and their universal verdict is, that *no good thing* has ever come through such a channel. The man who will take \$4.00 for something that does not cost him *as many cents* is off from the track, and out of line with the rest of humanity who are seeking to do good and to enlighten their fellow-men by every honorable means in their power. Many of you have perhaps seen the result of such work. If one man can sell something for \$4.00 that costs him only 4 cts., so can others do likewise, and a panic is created at once. Every little while we get a circular offering counterfeit money for sale. Now, although I do not expect to purchase counterfeit money, I read these circulars through very carefully. They start out something like this: "I suppose you know that it is

universally conceded now that no man can acquire a competence by regular day's work. It is too slow, and our moneyed men get their money in some other way. You have as good a right to get yours by a shorter cut as the rest of them. The goods we sell you are absolutely safe. In fact, they are so like the genuine that nobody can tell the difference. We furnish them for 4 cts., and you get a dollar." Now, whether it be patent-rights, selling secrets, or any other inducement that persuades you that honest, hard work, is too slow and laborious, the effect is mischievous. It is encouraging that spirit that fills our penitentiaries. And where one man is privileged to make money in this way, it is hard work to persuade people that they have not "as good a right," as the counterfeit-money circulars put it.

Imitators of Dr. Hall are already sending out their circulars. The effect on almost any community is like that of starting a whole apiary of bees to robbing during a dry time. Most of you have seen traveling men who sell dollar bills for 10 or 25 cts. apiece. The idea is so exciting that the gambling spirit is stirred up at once. Church-members, and even deacons, are oftentimes first to get crazy. Almost every community can furnish some instances of such occurrences.

Now, then, suppose we have made a discovery, or have revived something that has been dropped, that is of great value to humanity, and saves life. How shall we communicate it to our fellow-men? Why, by books and journals, as a matter of course; and these books and journals should be sold at a fair and moderate price. Our industrial publications are constantly giving information, to the fullest possible details, in almost every line of work; and good-sized books are now published on almost every subject imaginable. As soon as the need of such a book is felt, somebody is found ready to bring it forth. Riding on the cars a few days ago I glanced over my neighbor's shoulder, who sat near me, and I found he was reading a very prettily bound and illustrated book on lighting buildings by electric lights. The matter interested me because a lot of new words had just been coined, of which I should never have known the meaning had it not been for overhearing the talk of the men who recently put up electric lights in our own building. Now, rest assured, dear friends, that just as soon as anything comes up that is really valuable, a good, fair-sized book, at a fair customary price, will soon appear, making it known to community at large. Before the book comes out, as a general thing the fullest particulars will be given through the proper periodicals. As an illustration, I will mention the silo business. Why didn't somebody charge \$4.00 for this? and would they have done more good by communicating something of so much value, by charging so much for it that whoever purchased would be sure not to let it drop because it had taken hard-earned dollars? If the good friends who criticise so severely will just suspend judgment a little while, they will, I am sure, in a little time have abundant reason to con-



clude that your humble servant has not made such a very big mistake after all.

What I have said has, of course, no reference to a manufacturer selling out his processes with his business and good will, to a purchaser, as is right and proper. But selling secrets broadcast, and advertising them broadcast, with or without a promise to tell, is an entirely different thing.

## OUR QUESTION-BOX,

With Replies from our best Authorities on Bees.

All queries sent in for this department should be briefly stated, and free from any possible ambiguity. The question or questions should be written upon a separate slip of paper, and marked, "For Our Question-Box."

*QUESTION 165—Suppose that, at the beginning of the honey harvest, I remove the queen of a colony before the bees get the swarming fever, and give them a young queen that has just commenced to lay, how long after giving the young queen can I feel secure against that colony swarming?*

We do not know. We never try such means.

Illinois. N. W.

DADANT & SON.

From my experience I would say it retards them almost none.

California. S. W.

R. WILKIN.

I do not believe any one can answer this. It varies greatly with queen, bees, and season.

Michigan. C.

A. J. COOK.

There is no safety with a young or old queen. A swarm may issue at any time, other things being favorable.

Ohio. S. W.

C. F. MUTH.

In a season when the swarming fever runs high it does not check them long; in other words, it doesn't pay to make the change.

New York. C.

P. H. ELWOOD.

It depends upon the weather and honey-flow. If the above conditions are favorable, they will be ready to swarm in ten days.

New York. E.

RAMBLER.

Just so long as the bees do not swarm. With me, with the Italian bee the above has little or no influence toward preventing the swarming fever.

New York. C.

G. M. DOOLITTLE.

I have not tried the plan enough to say definitely. It would depend on the size of the colony, size of hive, character of the honey-flow, and several other things.

Illinois. N. C.

J. A. GREEN.

I don't believe that taking away one queen and then giving them another laying queen will prevent swarming. I have had several swarms come off with young queens just after they commenced to lay. In some cases not over a dozen eggs were laid.

Wisconsin. S. W.

E. FRANCE.

Giving a young queen as described will greatly lessen the chances of swarming for the season, but it is not a positive cure, for at certain times the swarming impulse is so strongly developed that nothing but the removal of the queen will control it.

Wisconsin. S. W.

S. I. FREEBORN.

It would be a very practical way of lessening the swarming, but it can not be considered an entire preventive. Bees sometimes astonish us by the way they have of doing things; and especially is this the case in regard to swarming.

Ohio. N. W.

H. R. BOARDMAN.

I can only guess at it. Perhaps in most cases they would not swarm that year, and at the earliest I should not expect them to swarm within four weeks. If the bees already had the swarming fever they might swarm within a day or two.

Illinois. N.

C. C. MILLER.

If your colony has been building up rapidly, and has a huge lot of brood, many young bees, and comparatively few old ones, your remedy wouldn't work, I think. At least in my apiary I should expect them to swarm very much the same as if no change had been made. The swarming difficulty is a much tougher problem than some of the brethren estimate it.

Ohio. N. W.

E. E. HASTY.

I have never tested it—that is, while I have frequently given young queens to colonies in the early honey-flow, I have never noted or made a record of any difference in the swarming time, from that of other colonies that were not touched; hence I conclude that the strength of the colony, honey-flow, climatic conditions, etc., have more to do with the time of swarming than any change of queen.

Illinois. N. W. C.

MRS. L. HARRISON.

That depends upon circumstances—that is, on the condition of the colony and the season. I have known it to prevent swarming entirely with some colonies, and with others they would swarm in from six days to two weeks after introducing the young queen. It is safer to leave them queenless 12 or 15 days, then give them a virgin queen, and you are pretty safe against swarming.

Vermont. N. W.

A. E. MANUM.

If the bees are shaded, and have plenty of room, usually the colony thus treated will not swarm at all that season, but sometimes they will; and it is the "sometimes" and the labor, trouble, and expense of the method, which are the reasons it is not in vogue to-day, notwithstanding it is over a dozen years old. I remember one leading bee-keeper who experimented on this line, carefully, over fifteen years ago, and he gave it up, and so have all who have followed him.

Michigan. C.

JAMES HEDDON.

Well, I am a little surprised to see so few favoring a young queen to discourage swarming. Friend Freeborn seems to be almost the only one to give us any kind of encouragement; and I should rather gather from the answers, that the condition of the colony has more to do with it than the age of the queen. By the way, has not this question some bearing on the matter of preventing the building of drone comb by giving the new swarm to the young queen? You will remember that friend Hutchinson, in his book, thinks young queens are quite an advantage where bees do not have foundation in the brood-nest in hiving a new colony.

## HEADS OF GRAIN FROM DIFFERENT FIELDS.

### BEES STEALING EGGS FROM ANOTHER HIVE.

*Friend Root:*—On page 497, July 1, you say to Mr. McGaughey that bees will sometimes transfer eggs from one comb to another. Now I want to ask you and others whether bees were ever known to transfer eggs from one hive to another. Last season I purchased of Mr. A. L. Swinson, of Goldsboro, N. C., an albino Italian queen and two pounds of bees, and put them on some frames of comb. This was the first of June; and along late in July I had an after-swarm of blacks. Not knowing from which hive they came I put them into a hive and set it near the hive of albinos. In the fall I put on them a case of unfinished sections and packed them in planer shavings, the same as I do all my bees. They came out very weak this spring, and I paid but very little attention to them till some four weeks ago. I noticed some bright yellow bees going in and out of the hive. At first I thought they were robbers, but I soon saw that they belonged there. Now, there is no difference between them and the bees I got of Mr. Swinson, and the drones are fully as red as are the albinos. I examined them a few days since, and found four frames almost full of brood, and as nice and bright a queen as I ever saw. Did they lose their queen, and borrow some eggs of their neighbors? P. L. NORTON.

Lanesboro, Pa., July 16.

Friend N., we have had several reports seeming to indicate that worker-bees do at times steal eggs from a neighboring hive, with which to raise a queen. Notwithstanding, while there are other ways of explaining most of the cases reported, I am inclined to think it somewhat doubtful. In the above case your hive must have become queenless by some vicissitude. Now, during swarming time the queen may have got away from your albino hive, and got into this one. They might raise another without your knowing it.

### RAISING BROOD IN A FRAME LYING HORIZONTAL- LY; THE SHALLOW SHIRLEY HIVE.

I have just finished a curious experiment, such as I never saw in print, or ever heard of. Perhaps you would like to publish it. I should like to learn whether any one else ever did the like. I put up two colonies of bees, one on top of the other, last fall, and lately (in the middle of June) I took them apart, set them near together to equalize, and now they are both working in sections. They were in the new Shirley hive. It has closed-end frames, and is only  $5\frac{1}{2}$  inches deep, and has single-story case (or hive) made on purpose to tier up for winter. I put a queen-excluder on top of the lower hive, then laid a heavy Langstroth frame (of honey) flat on top in a frame that made a rim to fit top of lower set of frames, and then set the upper set of frames, bees and honey, queen and all, on top of said rim. Each bee could help itself to the flat comb of honey, as they were both rather light in the fall. They came through in tiptop order, one of the best in the whole yard, out of 130 put up last fall. Another hive, put up in the same way, with an L. comb of honey between the two stories, came out well, and had the comb that was lying flat, filled with brood, top and bottom side as well—"head

and tails." They also stored new honey in it, top and bottom sides as well, rather ignoring the theory of cells sloping upward to better hold honey from running out.

J. O. SHEARMAN.

New Richmond, Mich., June 21, 1893.

### MORE BASSWOOD USED IN FURNITURE THAN IN SECTIONS.

I see a great deal in the bee-papers about using so much basswood for sections, but nothing about other places where it is used. I believe there is a great deal more used in the furniture factories, as I work in one. I believe we use as much if not more than you do, and a small factory at that. I believe friend Boardman says he will not buy any sections of basswood. If he examines his furniture I think he will find basswood in it; at least, we put it in every suit we make, and some are almost all basswood.

### WHITE-HONEY CROP SMALL.

The white-honey crop will be small in this section, or, at least, for me. I had thirty colonies in the spring, and took the brood from ten and made twenty good and strong. It commenced raining, and we had bad weather from fruit-bloom till after clover was half over, so when they should have been swarming they were killing off their drones. I had only six swarms, and other years I had more than I wanted.

F. S. BERRY.

Montoursville, Pa., July 12.

### WHY FLORIDA IS SOMETIMES LATE.

Last spring I gave the reasons, at least apparent to me, for which orange-tree blossoms gave honey; the same cause is yet more striking this year, and my bees have been rearing brood on orange-blossom honey for the past three or four weeks, with good prospect for another month.

But what a contrast with last year! by the 25th of March all the bees had swarmed; whereas so far there has been, in this section at least, not one swarm, and no prospect of any before two or three weeks. What makes such a difference of two full months? A continual drouth of six months that has kept back the trees from their ordinary habits of blooming in February and March. It is no wonder that we can not supply queens as early as some parties would like to.

### THE RED ANTS OF FLORIDA AS DESTRUCTIVE EN- EMIES TO BEES.

In reading in your ABC about ants, I had to smile. Our red ants here are Jumbos compared to yours, and boiling water does not seem to affect them. I have seen a whole swarm of bees decamp from their hive in the middle of the night, and crawl, beating their wings, to neighboring hives. They had been overpowered and were slaughtered unmercifully by their red foes. And the remedy? Well, I have been experimenting on several, but I won't tell just yet which is the best.

Winter Park, Fla., May 19. J. B. LAMONTAGUE.

### THE SUPERSEDURE OF QUEENS; TWO QUEENS IN A HIVE.

In the superseding of queens I think it rarely ever happens that the old queen is killed by her daughter; but when the old lady commences to fail, the workers may not start a queen-cell at once, and she may drop off very suddenly, leaving them without any queen at all, and she may linger on and lay a good many eggs, though very scattering, after the young queen commences to lay. Some four or five years ago I traded for a lot of



black bees. When I Italianized them I took six laying queens out of three hives, and this spring I took notice of one of my best queens failing before a cell was started. I saw the young queen before she commenced to lay; and the other day, when I looked to see whether she was all right, she and her mother were laying on one frame, and on the same side, and at times would walk past each other not more than an inch or so apart.

Fairview, Md., July 7.

C. M. HICKS.

#### ANOTHER FERTILE QUEEN THAT CAME OUT OF THE HIVE ALONE.

Did you ever know of a queen to come on the outside of the hive, that is an old one? She is two years old. Can you give any cause? The bees are working all right in the sections.

Swartz, Pa., July 14.

A. A. SIMPSON.

Yes, friend S., we have known old queens to come out of the hive. It is, however, not a very common occurrence. I once saw a queen a year old or more come out on the alighting-board, and then go back. At another time a queen was found on top of the honey-board when the cover was removed from the hive. Others have reported seeing them come out and take wing; but it is probably quite a rare thing.

#### WHY DID THE BEES KILL OFF THE DRONES IN JUNE, WITH PLENTY OF HONEY IN THE HIVES?

I see in GLEANINGS where other people have their drones killed off in June. They were killing off the drones with me too, and, worst of all, with me they killed five of my best queens, and they had lots of honey at the time. Can you give me the cause? The bees were drawing them out alive, and I would take and smoke the bees and put them back, but all in vain. They would take them out again, and she had the comb well filled with brood at the time.

Mikado, Mich., July 7.

D. B. McMILLAN.

I too have known bees to kill not only the drones, but their queens, during a great dearth of honey; but I never knew them to do this when honey was coming in, even in a small quantity.

#### OUR FRIEND BOOMHOWER'S MISFORTUNE.

We have met with quite a misfortune, and I thought I would write and let you know of it. On the 17th of this month my papa was in a neighbor's barn getting hay, and he fell from the mow, about 22 feet, fracturing his right wrist very badly, and he had a large gash cut over his eye, and his face is bruised very badly. We are in the midst of our bee-work, and he is disabled so that he can't do a thing. But it was a very lucky fall, as he might have killed himself. He struck on the bare barn floor. Our bees are doing very well so far. We don't remember when they have been in better shape for working. But we have no one to help us with them now, and don't know what we shall do. I hope the bees at the home apiary are doing well.

EDNA A. BOOMHOWER.

Gallupville, N. Y., July 21, 1890.

#### USE OF TERMS; THE EDITOR SUSTAINED.

I should like to say in regard to the poplar question in GLEANINGS for July 15, that I think you are nearer right than Mr. Touchton in your use of the name. Webster defines poplar as "a tree of the genus *Populus*, of several species; as, the black

poplar, aspen-tree, etc." The tulip is an American tree, and the name poplar can have been applied to it only since the settlement of America, while in the Latin form, *populus*, the name has been applied to trees of the aspen genus (including quaking aspen, cottonwood, balm of Gilead, Lombardy poplar, etc.), for over two thousand years. Of course, popular names are decided by usage; but I think that more people will understand if you call the aspen and trees of that genus "poplar" than will understand if you call tulip-tree "poplar."

Oxford, Ct., July 26.

E. B. HARGER.

#### ENCOURAGING FROM TEXAS, FOR HORSEMINT.

I left Sarnia, Ont., Canada, in December, 1889, for Cameron, Texas, to take Mr. E. Y. Terral's bee-yard No. 2 on shares. I found, when I came here, 45 colonies, a number of which were weak. I moved them to a new location 12 miles away. I increased them to 63, and extracted about 3100 lbs. of nice horsemint honey. Friend Root, you would be delighted to see the great fields of horsemint. It beats our fields of white clover in the north.

#### A GOOD REPORT FOR THE STANLEY HONEY-EXTRACTOR.

I extracted alone, in one day, with the Stanley, 48 gallons, taking out the honey, and uncapping it and putting back the empty combs alone. The next day I took alone 40 gallons. I could not have done that with a small two-frame extractor, and two helpers.

Cameron, Tex., July 14.

T. H. MILLS.

## REPORTS DISCOURAGING.

#### MANUM'S CROP VERY SMALL.

As the honey season is over here I send you a brief report. This being the "off" year for basswood we did not expect much from that source, though we sometimes get a little; but this year none. Owing to the wet and cold June there was but little chance for the bees to work on the abundant bloom of clover, hence our crop of honey is very short. I shall not get over 6 or 8 lbs. per colony, and but very little increase—not enough to make up the loss in winter.

A. E. MANUM.

Bristol, Vt., July 21.

#### HONEY CROP A TOTAL FAILURE.

The honey crop for Missouri so far is almost a total failure. A drought of three weeks the latter part of June and up to the 10th of July killed white clover and other flowers, and some bees at present are in a starving condition. Colonies that were strong the first of June stored enough honey to last them until fall flowers appear. Since July 10th we have had sufficient rain to insure a good fall flow, other things being favorable. The opening of the present season was very promising. Never before in this section was there so much enthusiasm shown and interest taken in bees, though now all is quiet, bees as well as bee-keepers. The scarcity of honey in our section will hold prices firm.

JNO. NEBEL & SON.

High Hill, Mo., July 19, 1890.

#### POOR YIELD IN RICHLAND CO., WIS.

One year ago to-day you came to visit me, and, oh how much different this year from last! I had over 3000 lbs. of honey in the house, and honey-boxes were full. This year I have not 100 lbs. in the

house, and but very little in the boxes. Clover was a total failure; basswood less than one week, and we do not know yet what the rest of the summer will bring. Friend Freeborn and wife and daughter made us a short visit last Saturday, and he thinks if we do not have to feed for winter we should be thankful. Of honey, 87½ lbs. is the least I ever got per colony; but this year it looks dreary for us at the Riverside—no honey, and our garden was almost destroyed three times by big storms. Our bees did not increase more than 10 or 12 in 100. I am superintendent of our Sunday-school, and Helena is secretary. We left the bees to take care of themselves Sunday forenoon, and perhaps lost one or two, yet I thank God it is as well with us as it is.

Orion, Wis., July 17, 1890.

F. L. SNYDER.

#### NO HONEY AND NO SWARMS.

Having kept bees for threescore and ten years (but now out) I am beset by every bee-keeper I meet asking the reason why bees do not swarm, and also why they do not even occupy the sections, being filled with foundation. You probably will judge what my decision is when I say that there has been but little white clover to be seen this year, where once it was abundant, and the basswood has been in bloom for four days, and no more signs of swarming than the first of May, some having already killed off the drones. The winter here was mild, and the spring usually favorable. There are bee-keepers here that keep from 40 to 100 swarms, who have not had a single swarm, and I have heard of only two this season, and of them one went back. It is true that it is dry here now, but not so till recently.

O. E. WOLCOTT.

Mount Morris, Mich., July 12, 1890.

#### PROSPECTS FROM THE ALFALFA FIELDS, AND SOMETHING ABOUT THE QUALITY OF THE HONEY.

The present prospects in this vicinity for a large yield of honey are rather poor. The alfalfa is pretty well dried up on account of a short water supply. The usual June and July storms have not yet afforded the relief hoped for. I send you to-day by mail a sample of extracted alfalfa honey, and I wish you to criticise it closely in GLEANINGS. We think it fine. It is said that honey is heavier here in this dry climate than in the East. We took 45 ¼x4 ¼x1 ¼ sections from one hive, some of them not fully capped, and they weighed 42 lbs. Honey has been coming in slowly for a few days past, although *Field and Farm* reports more honey up to date than ever before.

J. T. CLAPP.

Broomfield, Colo., July 7.

Friend C., the sample of alfalfa honey you send is not only the finest in appearance of any honey I ever saw in my life, but it is also equal in flavor. We may say to our readers that it is almost if not quite as clear as water, and yet during a hot July day it will scarcely run. It is as clear as crystal, and exquisite in flavor. Very likely our friend has not a ton of such honey; but if he has, I should think it would be a small fortune if he could get it before the class of people who buy gilt-edged butter and things of that sort. And, by the way, we are using alfalfa honey on our table day after day. I never ate any other honey that suited so well, and for so great a length of time. At present the outlook seems to be that alfalfa honey is destined to lead the world.

## SPECIAL DEPARTMENT FOR A. I. ROOT, AND HIS FRIENDS WHO LOVE TO RAISE CROPS.

That art on which a thousand millions of men are dependent for their sustenance, and two hundred millions of men expend their daily toil, must be the most important of all—the parent and precursor of all other arts. In every country, then, and at every period, the investigation of the principles on which the rational practice of this art is founded ought to have commanded the principal attention of the greatest minds.

JAMES F. W. JOHNSTON.

#### WOOD ASHES AS A FERTILIZER.

For some years I have been a good deal disappointed because wood ashes did not produce as good results on our soil as they seem to on most soils; and this season, after our heavy business in bee-hives and sections, a pile of ashes had accumulated that looked almost like a small mountain. All our ground had been treated to ashes already so liberally that I had little faith in putting on more. These ashes, of course, are not very strong, for they are made from pine and basswood; and, besides, the great bulk of them is from coal. Before putting them on the ground we sift them with a coal dealer's screen, to take out the large cinders. Well, in one of the agricultural papers I read of a man who spilled some beet seed on an ash-heap. He was making garden, and set his package of seeds down on the ashes. To his surprise, the few seeds produced magnificent beets—beautiful, smooth, and clean, compared with those that grow in the ground. To test the matter we put some ashes on some of our plant-beds until the surface was more than half ashes. Sure enough, we have onions, radishes, lettuce, and beets growing with wonderful vigor—some of them right in clean ashes, apparently. No insect meddles with them, and their rank growth, with deep-green foliage, is all that could be asked for. We have just planted several pounds of onion seeds left over, in a similar bed. These are, of course, at this season of the year, to produce sets, and not onions. Some of them are already up, and give promise of a wonderful growth. As the ashes and ground were both sifted, all we shall have to do in harvesting our sets will be to *sift them out of the dirt*.

#### POTATOES AS A MARKET-GARDEN CROP.

*Friend Root:*—Just four weeks ago I put Vick's Early Market potatoes on the wagon, and they sold at 50 cts. per peck, for ten days, the town taking about 1½ to 2 bushels every day. The Puritans were also sold for 50 cts. per peck about June 25th. Something is to pay with the potato crop in Nebraska, and if I had only planted my Puritans instead of throwing them into the manure-heap I should have quite a little fortune, as they have done grandly where the ordinary kinds have utterly failed. I could sell 50 bushels per day at \$1.00 per bushel, on the cars, if I only had them, for Lincoln and other markets. I can always get more trade by selling potatoes on the wagon, though, of course, it makes a heavier load. Now, my object in writing is to find out whether there is any way to make the new ripe potatoes grow so that I can raise a supply for winter. Either you or some of your readers may possess this exceedingly valuable information. I have some drying very near but



under a hot roof; but I do not know that I can fool the potatoes into growing. Others in the West may like to see your enthusiasm solve the problem of making new potatoes grow.

M. S. BENEDICT.

Crete, Neb., July 21.

Friend B., I know of no way to make new potatoes start up and grow like old ones that have been kept back, in a cool cellar, or buried in the ground. I think the latter way will be the best to manage it. I have made new Early Ohios grow by laying them in the sun until they became green, and useless for any purpose except planting. But this consumed valuable time, and the potatoes were much slower in starting than old ones. A neighbor of mine always saves some Early Ohios until the middle or latter part of July; then he plants them in good ground, and they come up very quickly and grow very fast. His object is to get potatoes that ripen just before freezing weather, that they may keep for seed over winter without sprouting. One season he had a crop of very fine large potatoes from Early Ohios sown during the last of July. At the prices at which we have been getting for potatoes for over six weeks, they will make a splendid market-garden crop. By the middle of June we could buy nice potatoes, brought from the South, for about a dollar a bushel; but when the old potatoes gave out they suddenly ran up from \$1.50 to \$1.60, and are in that neighborhood still. Now, this has occurred season after season, or something like it. It would certainly pay exceedingly well, at the latter prices, to start potatoes in the greenhouse, in boxes. Plant them exactly as you do cabbage-plants, putting a good double handful of rich fertilizer, from the greenhouse-bed, around every potato when you plant it. It is hardly possible that it should not prove a good investment for those who have room to spare under glass. The heat of the sun is all that is needed to start potatoes as soon as we want them. I would suggest that we have, for this purpose, an extra-early potato that is slow to sprout. At present I know of nothing that fills the bill as well as the Early Ohio.

#### PROPAGATING STRAWBERRIES WITHOUT HAVING RECOURSE TO THE RUNNERS.

I see in your foot-note to J. Johannsen, page 534, July 15, that you note that the other kinds of strawberries besides the Oregon are flowering in the same manner and under the same treatment. Well, very rich soil has shown the same result, but with berries that rotted badly under some observations that I have made. There is a variety here known as the Gov. Jewell, that, if very early runners are let have a chance, will mature about half a crop of fruit late in the season. You further note that you do not think that it will do to divide the old plants. I tried that as an experiment for four successive seasons, with about 20 varieties, and in no case had a failure. Take the plant up very carefully, clean off all the old leaf-stalks from the root, then separate every crown carefully; pack them nicely in sphagnum (swamp moss), and keep it just wet, not soaking, and keep them in a warm sheltered place. In four to eight days the small white roots start; then box them off in rich sandy soil, and finer

plants to send out you can not find; but don't leave on too much top.

H. L. JEFFREY.

Woodbury, Ct., July 20.

Thanks, friend J. Since you mention it, I do remember having started a strawberry-bed by taking the old plants. With excellent care and plenty of manure I made them throw out new roots as you say, and I got a very fair crop; but it is more labor and expense every way, and I think without as good results as the runners gave. In case of a variety, however, like the Oregon Everbearing, it may be advisable to increase that way.

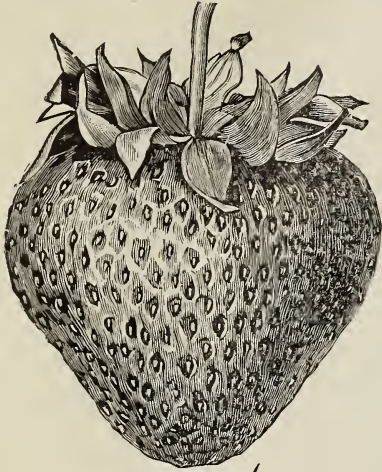
#### STRAWBERRIES AND STRAWBERRY-PLANTS FOR FALL PLANTING.

In answer to many inquiries in regard to what plants to recommend, and for a report on the new varieties, including all the latest and most important before the world, I would request all the friends to send for Matthew Crawford's July Report. Address Matthew Crawford, Cuyahoga Falls, Ohio. Friend C. makes it his business to test with great fidelity and care all strawberries brought prominently before the world, and I have the utmost confidence in his skill, ability, and honesty in regard to faithful statements in the matter. The soil and locality may not give exactly the result that yours do. But he can furnish you plants adapted to any locality. My own experience coincides with his almost exactly in regard to the value of the new varieties. I would earnestly recommend, however, that you raise *your own* plants, as a general thing. Get a dozen, or even half a dozen, at this season of the year, of such varieties as you choose, then set to work and learn the trade of making plants. It is with strawberries as with bees. The safest way is to commence with a little, and learn as you go along. When you can care for half a dozen strawberry-plants properly, enlarge to 100, then to 1000, then to half an acre, and so on. But do not, I beg of you, commence with an acre first. It will surely end in loss and trouble. Friend Crawford has for sale about 25 different varieties. As I told you in our last issue, we have decided to offer for sale during the coming fall only the Jessie, Burbach, Haverland, and Gandy. The first and last have perfect blossoms; the other two must be fertilized.



To show you something what two of our varieties look like, we will give you some

pictures, taken from the strawberry-book, noticed elsewhere.



GANDY.

The cut hardly does justice to the Haverland, but the cut of the Gandy is very accurate. The large number of petioles are of a bright vivid green, contrasting beautifully with the crimson hue of the berry. Its petiole also allows air to circulate, and keeps the berries from bruising. They hang away up from the ground, just as the berry hangs in the cut, and I think we had quite a good many fully as large as the cut.

In regard to ordering perfect-blossom plants to fertilize the others, we extract from the new book as follows:

Mr. Kellogg, of Wisconsin, and others, prefer the Jessie to fertilize the Bubach; they say it makes a strong team. Perhaps so; but the Cumberland and Bubach blossom more nearly together, and, on our soil, I think now they will do the best together. The Jessie is considerably too early for the Bubach, but just exactly right for the Haverland. I should not wonder if they made us a strong team. The Downing fertilizes the Sterling well. We have three strong teams. I hardly know which is the strongest. That row of Gandy is put in where it may help to fertilize some of the late blossoms on the Bubachs and Sterlings, which are medium late in blooming.

There are three other strawberries we are going to plant considerably, but we shall probably not be able to offer them for sale this season. The first is Michel's early, which is the same thing as the Osceola. At present this seems to be the best extra-early strawberry. The next is the Louise. These berries are very large, but of queer oblong shape, pointed at both ends, more like a gimlet-handle than any thing else I can think of. A basket of them awakens surprise at the oddity. The plant is a splendid grower, fruits well, and is almost as sweet as the Jessie. Then there is the tomato-shaped plant I described in my visit to Mr. Crawford. He says, in his July Report:

SAUNDERS.—Originated and introduced by Mr. John Little, of Granton, Ontario, one of the best-posted strawberry-growers to be found. This was the most productive berry on my place this season, and was a great attraction to visitors. An experienced grower from an adjoining county conceded that it was more productive than the Crescent. Another grower from the same county, upon see-

ing it exclaimed, "Well! well!! well!!! well!!!!" The plant is faultless, and the blossom perfect. It is very showy in the basket, being large and of an exceedingly brilliant, deep-red color. The first berry on the stem is of immense size, and quite apt to be misshapen, but the bulk of the crop is of conical form, flattened, with a suture or depression on one or both sides, extending from the center to the apex. The flesh is red, juicy, and of a sprightly, agreeable flavor. This variety, in both plant and fruit, is one of decided character, and sure to make its mark.

You remember, in the spring I spoke about making garden on ground with paths so close that one never need step on the beds in cultivating and gathering the crops. Now, there is certain stuff that I feel sure it would pay to raise in just that way. First, all kinds of plants, including strawberry-plants for sale. My plan of making these beds would be to use some 6-inch fence boards, 16, 18, or 20 feet long, just as you can get them. Make an oblong box of this, something like the top box of a lumber-wagon. Fit your ground thoroughly with a team as for any crop—that is, if your space is large enough. Then set the box on, driving stakes to keep your boards from spreading, and fill it up with compost. The paths need not be more than a foot wide. In fact, where ground is very valuable the workman can stand in a 10-inch path. Shovel the dirt out of these paths, throw it in the middle, fill up with manure, sand, and muck. If you can not get all three, use what you can get. But make your ground so it is as rich as the beds in a greenhouse, and have it so composted that it can not make a bake or crust, even if you water it every day. Now, this is what you want for the strawberry-plants. If you can not afford more than a single bed, make that one bed in this way, and put single plants, say 4 feet apart, right through the middle of the bed. With the transplanting-tubes you can take up a plant having a dozen runners. Spread the runners out like the spokes of a wheel; put a little stone—or, still better, a lump of manure—on each little plant to hold it in place; then water the ground so it never gets dry,\* and just see how those strawberries will run and make plants during these July days. Why, you can do a big business in selling choice plants to your neighbors; and if your ground is spaded up and enriched, say 18 inches deep in these plant-beds, oh my! what roots your strawberries will have! I have not tried fruiting very much in these plant-beds, but I have visions of having fruiting plants all around the outside edge of the bed, with great berries the size of hens' eggs hanging over the side of these 6-inch boards. I saw that in just one case this spring, and I expect something wonderful will come of it before we get through. Just now, however, the main business is to raise the plants and to get good stocky ones ready for fruit next season. You see you can be raising plants in these plant-beds whether it rains or not; and when your crops are off, and there is rain enough to work your ground nicely, you can put your plants out in the fields when you get ready.

\*A big tank or reservoir, kept full by a windmill, is just the thing during this hot, dry, dusty weather.



## MYSELF AND MY NEIGHBORS.

In lowliness of mind let each esteem other better than themselves.—PHIL. 2:3.

THE world says, "Look out for No. 1." The Christian religion says, "Not so." But it even goes so far as to say, in the language of our text, that we should "esteem other better than ourselves." We have all heard this enjoined; and during these hot summer days, when we sit near the pulpit and listen to the good pastor who exhorts us against selfishness, we assent in a sleepy sort of general way. If somebody should take us by the shoulder and shake us and ask us what we think of such a doctrine we would likely respond, "Oh, yes! that is all right; that is what we ought to do. In fact, that is what I do or try to do as well as I can." And I am afraid we let it drop right there, without any particular idea of applying it in a practical way to the business of every-day life. And yet this world is suffering and going to ruin for the want of a practical application of the religion that most of us profess. Let us see how our text fits to actual business.

It is quite customary for newspapers and periodicals to give testimonials from their advertisers. In fact, among our "Kind Words" we have put in quite a few headed something like this: "GLEANINGS as an advertising medium." I believe, however, especially of late, they have all been flattering reports. For some little time I have had a sort of uneasy feeling that it was not fair to encourage people to send us advertisements without giving the discouraging reports as well; so I think we will have one of them right here:

A. I. Root:—Find inclosed \$1.60 to balance my account. I failed to get a single answer to my advertisement.

WALTER J. HUSSEY.

Mt. Pleasant, O., July 24, 1890.

Now, that is a pretty bad showing for the value of GLEANINGS as an advertising medium. May be, however, the nature of the advertisement may have had something to do with it. Let us look it up and see. It came out in the July 1 number, so it had been before the people almost a month when our friend reported. Here is the advertisement:

### PHOTOGRAPHY AND BEES.

One hand camera, 4x5 pictures, and one Scovill. 5x8, with tripod, etc., \$10 each. Also a few stands of Italian bees, which have averaged 100 lbs. of honey per stand, in Root's Simplicity hives, with wired combs, \$4.00 each. Send for particulars.

W. J. HUSSEY, Mt. Pleasant, O.

I do not know much about the average price of instruments for photography, but I should think the above was reasonable. The price of Italian bees is certainly very low. They must be good Italians or they would not have given 100 lbs. of honey each. But we must confess the fact that not one person among our 10,000 readers took any notice whatever of the exceedingly low price of bees. Probably the greatest reason for this is, that few people wish to buy bees at all after the season for honey is over. It is like goods that must be kept over for another

season. Some beginner who has the bee-fever bad might possibly invest in July; but there do not seem to be very many such now among the readers of GLEANINGS.

One other obstacle in the way of purchasing bees is, that it is a very expensive matter to ship them any distance, and a good many have been discouraged from buying bees in July, because of having combs broken down, etc., therefore we have gathered two or three good morals from friend H.'s report. But how about the \$1.60 that has been paid to us that has never given our customer any profit whatever? Very likely friend H. is perfectly satisfied to drop the matter and call it all right; but I am not. When my religion is bright and clear I never feel right in taking money for something that has never done any good whatever. Friend H., the \$1.60 is placed to your credit until further orders; and if any other GLEANINGS advertisers have sent us like advertisements that have brought them *not a single application* there will be no charge for said advertisement. If, however, we should tell you when the advertisement is sent in that we fear it will not pay you, and then you should say, "Let it go in and I will take the chances," I should feel all right—that is, tolerably right, if you will excuse the expression, even if it gives you no profit. What application has all this to our text? Why, this much: We should feel just as sorry for *somebody else* who invested money without getting any returns as if we had done it ourselves. Most of us know *exactly* how one feels after such an experience. Nay, further: that faithful and devoted follower of Christ Jesus, our good friend Paul, says we should esteem other *better* than ourselves. Now, I presume a lot of good friends of mine will protest at this way of doing business. They will say, "We can not live by it." Oh how glad I am that I can tell you you are making a mistake and a blunder! No man ever failed in business because he was too honest or too self-sacrificing, or had *too much* real love for the interests of his fellow-men. In fact, it is quite the contrary. Nothing in this world can advertise a business or build it up like getting the spirit of our text into your hearts. Some one may smilingly suggest that perhaps this is the very "dodge" that I am up to now; that it is another scheme to advertise A. I. Root; but I do not believe that any of you think so. Some of you may talk that way when you are provoked with me; but you know I have demonstrated in these years that are past that a business can be built up with wonderful rapidity by putting in practice just this sort of teaching. There is nothing in this world that so provokes and disgusts a customer as to see the man or firm he is dealing with showing disregard for his interests. The spirit of our text is a comparatively unexplored region. It is so rare to see a man or a business house put it in practice—that is, looking out for their *customers'* interests better than they look out for their own—that when anybody does it it creates a sensation straightway; and it makes a bigger advertisement than would a sign over the

top of your building, with letters on it ten feet long.

It is not only business houses and managers, shops and factories, that fail to avail themselves of these wonderful gospel truths, or fail to explore this great broad unexplored region, but it is common laboring people—those who work for wages. The quality embodied in our text is so rare and so valuable that he who has got hold of the key, and who has discovered the secret, shoots up in his attainments, ability, and value so as to call forth remark. Now, do not understand me to say that such qualities do not sometimes fail, for a time at least, of appreciation. The one who commences to serve Christ by loving his fellow-man better than himself will have crosses to bear. Like Moody in his first boyish attempts to serve the Lord, he may find himself put down to crackers and water for his rations, and a hard bench to sleep on at night. But the reward is sure and certain, if he shows a reasonable and constant devotion to the interests of his fellow-men and to Christ Jesus.

You may ask why Christians do not get greater wages for their services, compared with worldly people, than they do at present, take them right through. My reply is, that their Christianity does not strike deep enough, and is not put sufficiently and directly into practice. Let me now give you another practical application of this same spirit. I am afraid it may give pain to some good friends of mine; but even if it does I am sure it will prove a lasting help to them in the end.

June 12 we received an order from Mrs. D. B. Crumbaugh, Augusta, Ky., for a lot of hives, frames, etc. The goods were shipped June 24, twelve days after the order was received, which was not so very bad for an order in June. The goods, however, did not get along in due time, so she wrote us, complaining, telling how great was their need. A tracer was sent as usual, but this did no good, apparently. Another complaint was sent and a second tracer. The card calling forth the second tracer we give below:

Please send a tracer from your depot after the things. I gave the bill of lading to our agent, and he said, send to you. *I see your letter is to Breckenridge Co., instead of Bracken, which mistake you may find is the cause.* I know if I had thought it would have been so long and so much trouble to get you to fill an order for me I would not have bothered you to do so.

MRS. D. B. CRUMBAUGH.  
Augusta, Ky., July 3, 1890.

You will notice the italics in the above. The writer did not emphasize this portion, but our clerk who opens the mails always reads every thing and underlines all matter of special importance. This was underlined to indicate to the book-keepers to look up this matter and see whether the goods were properly addressed. I want to put in a plea in behalf of the book-keepers. They were so overcrowded at this date that even important matters were crowded over for the next day, and a great mass of communications did not receive the careful attention they perhaps would at any other season of the year; therefore the matter in italics

was overlooked entirely. As a dozen or more tracers were sent every day for goods, I presume they had got into a mechanical sort of way, without giving much thought to it, only that more goods were to be traced or hunted up. The tracers were sent in a sort of routine way, and the kind appeal underlined on the card was overlooked entirely, and the postal card distributed. Of course, an answer was made, as we always make an answer, but it was only a printed one. We have been obliged to use printed answers quite largely during this past season, simply because they were better than no answers at all, and because we could not find anybody who could answer intelligently—that is, no one who could do it until he had some acquaintance with the business, and experienced hands were already overworked. Finally there came a letter that fell into *my* hands. Here is the letter, with postscript:

Mr. Root:—Again I write to say nothing has been heard of the supplies. I ordered the goods marked forwarded promptly; and if marked correctly, and in that way, it seems to me that the railroad officials ought to be made responsible to a certain degree for my loss. Here have been our hives minus frames, all during the honey season. As I wrote you before, the man working with the bees said our loss in honey was from 300 to 500 lbs.; besides, if goods ever come I am bound for them all, as, not coming in time, he has no use for them another season. I do not know what Mr. Crumbaugh would order done with them if ever found—returned to you or sent on to me. I shall have to leave that with you. Our honey season is over here for this year, and he does not think he will be here again next season. The 30 days from shipment expires to-morrow, but I usually, in my own business, receive goods before sending remittance. This, to me, has been the most worrying order and business I have ever attended to in 19 years' experience. Mr. C. will, I think, be home during August, and will then write to you. MRS. D. B. CRUMBAUGH.

Augusta, Ky., July 23.

P. S.—When you find them I think you will find them directed to Breckenridge Co., to which I called your attention before, but there is no town of Augusta in that county.

After reading the postscript I penciled at the bottom of it: "How is this?" Then was unraveled the whole shameful story. The postal card with the underlined part was brought to light, and the book-keepers were obliged to admit that no attention was paid to the suggestion that the goods had not been *directed right*. Going back to the original order we find that our friend wrote plainly, Bracken Co. The pen hadn't marked quite plainly, however, so it might have been considered Brecken instead of Bracken. Well, the one who draws off the orders and simplifies them for the packers, making sure that the address is *exactly correct*, took it into his head that this was an abbreviation of Breckenridge, and so added "ridge" to Brecken, sending the goods to a county that had no Augusta in it at all. For several years, at the bottom of page 3 of our price list is the following in large black type: "In one case we had to pay \$131 for sup-



plying a county that our customer did not give." It is kept constantly in our price list to impress upon our friends the necessity of giving the county as well as town. Our clerks, all of them, have had ample experience in regard to the matter of counties. The county is often of more importance than any thing else. If you have the county, the goods will generally find the town. Please notice that the responsibility falls upon a great many people in this little transaction; but it comes first upon myself. As there was just time to get a few lines mailed before train time, by my direction the book-keeper told our customer of the shameful blunders that had been made, and wound up by saying we had ordered the goods returned to us; and, more than that, if she would tell us what our blundering had actually cost her we would try to pay it.

Now for a practical application of our text. Being tired and overworked, is, I know, quite an excuse for doing things in a half-hearted, mechanical way. It is, to a reasonable extent, an excuse for a want of sympathy for those whose comfort and happiness depend upon our fidelity; but notwithstanding, if we esteemed others *better than ourselves*, and had that real feeling of sympathy in our hearts, and love for every human being, even though miles away, we should be more careful than we usually are about doing them wrong or injury, even through inadvertance. If somebody puts a great heavy boot on your corns, you can accept an apology with a pretty fair grace, especially if he says he did not *mean* to do it. There is, however, a feeling in almost every one's heart, that the man who has great heavy boots, and a big heavy body to bear down on them, should look carefully where he steps; and, dear friends, it behooves a Christian not only to look very carefully where he *steps*, but to be careful what he *does*, especially if his work be of such a nature that it may work injury that can not well be repaired. The clerk who added "ridge" to the name of the county, has a postal guide right on his table, expressly to set him right when there is any doubt in regard to an address. Had he looked in this he would have found a Breckenridge Co. in Kentucky; but had he looked further he would have found that Augusta is in Bracken Co., and this would have made him safe. We have had ample experience of the danger of "tinkering" with addresses in any way. If we direct goods exactly as we are ordered to, we can easily prove ourselves exempt from blame; but if we add to, or take from, in the least respect, we are doing a dangerous business.

Now, so far my story looks a good deal as if I were complaining that but little Christian sympathy is found, as a rule, among business people. It might look, too, as if I meant to say that A. I. Root has lots of Christian sympathy, and that is why he is doing so big a business. Now, please do not get that idea. A good many of you know that it is not so. A. I. Root once in a great while takes a *freak* of showing forth a spirit somewhat akin to that of the glorious Master. But this light he has been able to

shed to you through these pages is all a *borrowed* light. All credit and honor and GLORY belong to Him who came to a sinful world because he loved sinners. I do not know but I scolded most about that postal card with that important part underlined. When I went to the book-keeper with it she admitted that it was a grievous thing to neglect and ignore such a plain suggestion as to the cause of the trouble; but she shouldered the whole blame at once. In fact, as I understood it, she took it all on herself. A few minutes more, however, another lady—a devoted Christian, who sends the tracers—came to me saying, "Mr. Root, I send all the tracers, and it surely was my fault that that card was distributed without inquiring into the matter underlined. Tell me what it costs to make this good, and I will pay it." Then I felt happy. We had reached bottom, and were beginning to stand on the rock Christ Jesus, according to the text. I feared she did not realize, however, how great was the damage, and, said I, "Why, my friend, it may cost a *hundred dollars* to make good this woman's loss." I watched her face to see what the effect would be. I could see the inward struggle, but she bore it bravely, and replied, "Never mind, I will pay it, or my share of it, whatever is right." This, my friends, is what I call shouldering the cross in business matters. As she is a comparatively new hand, her wages are not very large; and one hundred dollars, as a consequence of passing a postal card along before it was fully answered, would prove a pretty heavy cross. The book-keeper, who has had many years of experience, and has a pretty fair salary, protested, however, and insisted that *she* was *probably* the one who passed the card along for distribution. I do not know whether it occurred to them that their old friend A. I. Root would never stand back and see two women lift on a burden like this without lending a strong hand. My impression is, that they did not think any thing about it; only they felt for their poor sister away off in Kentucky, who tells most plaintively in her letter of her troubles that came about through our carelessness.

The leader of our young people's meeting not many Sundays ago made the remark that speaking well of people is contagious. I spoke right out ("in meeting") and remarked, "So is fault-finding," and the whole meeting smiled. Now, my friends, this spirit of Christian *sympathy* is contagious. Why, it catches and goes like wild-fire; and if that sister away down in Kentucky does not get a little of the contagion too, and come forward and clasp hands with her sisters here, even though they have done her a damage, I shall be much mistaken. After she has seen this statement of the matter she will show a Christian spirit in making out her bill of damages, whether she be a professing Christian or not.\*

\* Since the above was written, the clerk who added the "ridge" to the name of the county has sent me a little note, written on his type-writer, expressing great sorrow for his error, and proposing to work for less wages until he has made up for that and some other mistakes. So you see there are

Now, my friends, a word in regard to *bearing* these crosses, or, letting them slip on to the shoulders of *somebody else*. It certainly builds up business, and it builds up daily wages and salaries; but, best of all, it helps us to grow and improve in accuracy, in skill, and fidelity. A man who goes to work for me and proposes to stand the consequences of his blunders—that is, where they are *clearly and unmistakably* his own, makes progress “straightway,” as our good friend Mark puts it; but the one who says he “can not afford it,” or who evades the subject as quick as he can, has trouble and misfortune all his days; and, worse still, he does not seem to get over his misfortune of being inaccurate. Perhaps it is true, there are those who are unfortunately unfitted for any position where mistakes are dangerous. I have sometimes had pleasant talks with people who seemed by *nature* unfitted for exceeding accuracy. It depends a good deal, of course, on the faculty of close application to the matter in hand. I feel sure of this, however, that a spirit devoted to the great God above, who gave us our talents and abilities, will help very, very much in all these matters, and then imposing a punishment upon ourselves as a consequence will generally bring us to a “realizing sense” of our sinfulness. Besides my yearly subscription to our church, I always make it a point to put a dime into the contribution-box as it passes. Well, I have been greatly annoyed by forgetting to provide myself with dimes. I finally told Mrs. Root that I was going to cure myself by imposing a fine of half a dollar or a dollar for my forgetfulness. Soon after, I put a dollar into the contribution-box for some purpose where money was wanted for current expenses. The usher, however, brought it back to me and said it was a great deal more than my share, giving me some change. I told him it was all right—that it was my way of bringing A. I. Root to time. Well, it did the business. I attend a great many religious meetings, as a matter of course; and of late years I very seldom find myself out of the dimes that I propose to give whenever a collection is taken up. When it costs us *money* to forget, we get *over* forgetting.

Business has slackened up now, so that our rooms are almost deserted. A great many of the hands have gone away to labor in other places, and a great many others are out at work on the new building. My greenhouse and garden is a sad wreck; but in its place, massive stone walls are slowly rising. Now in regard to the friends who are helping to move the stone, brick, and mortar. A great *many* of them are unaccustomed to such work. *Some* of them have had experience. But I tell you, my friends, that even experience counts but little in comparison with a hearty good will and *interest* in what is going on. We have had men there at work who would stand and wait to be told. They would not pick up a crowbar—in fact, they would not be looking

at the work until the boss told them just what to do. Sometimes he would have to take hold of a man, and point to the crowbar, and then point to the stone. *Others* would be full of interest and sympathy. If they did not know about the tools and stone, they would ask questions. If a block of wood were wanted for a bait, before the mason could call for it they would have it right in place, and in a few hours they would get the run so that, without previous experience, they would “catch on” and go ahead without any telling at all, almost. What are these men worth who ask questions, use their eyes, and all the ability they have, to see what is going to be done, and to be on hand with the right thing at the right moment? Why, one such man is worth two or three of the former. Now, it is all in a line with having sympathy with all that is going on—having an anxiety and love, not only for your employer, but for your fellow-workers, and for the great business and machinery of human life at large. We have several German helpers among us, and some of these can not talk English very well. But I tell you, my friends, their kindly sympathy, their bright, energetic willingness, good nature, and their hearty co-operation, is worth ever so much more than ability in using right language without these qualities I have been speaking of. Physical strength is a good thing; but even *that* is hardly to be compared with a right spirit within. *Selfishness* and *greed* are the great obstacles. O dear friends, shall we not strive *still harder* to follow the injunction of this beautiful little text—“Let each esteem other *better* than themselves”?”

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## EDITORIAL.

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Bear ye one another's burdens, and so fulfil the law of Christ.  
—GAL. 6:2.

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DON'T fail to read the articles elsewhere from commission men in regard to disposing of your honey crop.

### SOMETHING IN REGARD TO RAISING BASSWOODS FROM THE SEED.

THE following is taken from a report found in the *Country Gentleman*, of a convention in regard to forest-trees. We hardly need add that Mr. Meehan is excellent authority:

The basswood, or linden, is one of the best street-trees that we have, as it always makes a fine, continuous growth; but an objection may be in the coloring and dropping of the leaves so early.

Mr. Manning believed that the native linden is much superior to the European in respect to the early leaf-fall, and also in not being so liable to injury from the borer. Mr. Meehan's method of raising basswoods is to plant the seed in the fall, two inches deep, and keep the soil covered summer and winter, as darkness is absolutely essential to germination; thus treated, the seed will grow almost as readily as peas.

### IRRIGATION IN THE EASTERN STATES.

JUST now we are in the midst of a pretty severe drouth. In purchasing some beautiful blackberries of a neighbor just now, he remarked that he was going home to draw water in barrels to water half an acre to keep them from drying up. When I

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four, counting myself, to bear the burden of damages. He will not have to work for lower wages, however, I am pretty sure; neither will anybody who goes to work righting mistakes in this way.



asked him whether it would pay, he said he had tried it for years, and it paid big. With plenty of water he will have 50 bushels that will bring a large price on account of the scarcity of fruit and berries. Without water, a few days more will make them a failure. As I write, our 1600-barrel tank is almost full, and the mill still pumping. A builder came in and asked what I would take for 16 barrels of water. I told him I had never been in the business of selling water, and that he could have it and welcome. Moral.—Don't you think a big tank, with a nice windmill, a pretty good thing to have in a dry time?

#### AN APOLOGY.

SOME time in April, Messrs. A. F. Stauffer & Co., of Sterling, Ill., sent us notice that they were burned out. Instead of notifying their customers of their misfortune by an editorial, as common courtesy would dictate, by some means or other their notice was set up as an advertisement, and they were charged for it. The above confession is a little humiliating, I admit, as it implies that none of the heads of our establishment really knew what had been in our advertising columns. By way of excuse, we urge the great amount of business during the past season; but I know the excuse is a poor one. Now, the whole point of this apology is, that our friends who have trusted orders with A. F. Stauffer & Co. should exercise patience and charity, and not be too severe on them. There is another moral: Although their loss was something like \$8000, by neglect their insurance had been allowed to run out. Please look after your insurance, friends, especially if you are a supply-dealer, even if you are so busy that you can not attend to any thing else.

#### THIS SEASON VERY DISCOURAGING; A HINT TO HONEY-PRODUCERS.

A FEW days ago we sent out a set of questions to our statistical reporters throughout the United States. As only about half of the statistical cards have been returned, we can give only a partial report; but that bee-keepers may know a little in advance what to expect, and so hold up on the price on what little honey they may have gotten, we thought best to say *now* that the cards so far received show that this year is an exceptionally poor season for honey—perhaps the worst in many years. A good many of the veterans will not get more than four or five pounds surplus per colony. With very few exceptions the report is, all along the line, "Season very poor, and prospects also poor." Certain parts of Kentucky, Virginia, Wisconsin, and Minnesota, have had an exceptionally good season. If you have secured any honey at all, don't be in haste to sell it off too cheap. The crop in California and Colorado will probably be good. We have hardly had time to get reports from these sections. We learn, also, that fruit is going to be rather scarce this year. This will help materially to stimulate the demand for what honey there is, and also to stiffen prices a little. It is no use to say bees do not pay. Farmers are complaining that they can not get a living out of the soil. Fruit-men also will probably complain about the past season. The fact is, all these rural pursuits have their setbacks. The best way is to look cheerful, be cheerful, and thank God for what we have.

*Later.*—Since writing the above, the prospects are brightening. Reports are coming in of large crops

of honey having been received in various localities. Clover seems to be "hanging on" longer than was expected.

#### A BICYCLE TRIP AMONG THE YORK STATE BEE-KEEPERS.

The writer, Ernest, expects to make a trip through York State by the aid of a bicycle and the locomotive. I shall go by rail long distances, and for short distances among the bee-keepers I shall travel on the wheel, the weather permitting. I have recently purchased a Victor high-grade Safety bicycle. I shall be equipped, also, with a Kodak camera. Many of the best bee-keepers are off from the railroad routes, and are located anywhere from eight to twenty miles apart. My object in making this trip is to get information upon a great many points connected with our industry, by visiting bee-keepers of large and varied experience, and of varied opinions as well. I propose to go to Jamestown first, to visit the W. T. Falconer Mfg. Co. If the roads permit I will then mount the wheel, pass along the shores of beautiful Lake Chautauqua, strike the railroad near the lake, and pass on to Buffalo by rail. Thence I will take the cars to Auburn, and mount the wheel and proceed to Skaneateles, and then ride along the shores of the lake of that name, and finally stop a few hours at the home of that veteran bee-keeper and writer, G. M. Doolittle. Thence I will pass on to Starkville, the home of P. H. Elwood, one of the most extensive bee-keepers in the country. I hope to visit, in this vicinity, Mr. Julius Hoffman, the inventor of the Hoffman frame; then Van Deusen & Sons, of flat-bottom-foundation fame, and possibly take a short run down to some of the apiaries of Capt. Hetherington. The captain is absent for the present, I understand. Thence I expect to join my wife at Durham, on the Catskill Mountains. After a few days' outing I hope to run up to A. E. Manum's, to visit bee-keepers in that vicinity, and finally strike out for Lake George, where a camping party of some of the best bee-keepers of the land will be present. This party will consist of Rambler, F. A. Lockhart, J. H. Larrabee, and a good many other bee-keeping friends, whose names are not announced. In regard to this camping party, Rambler, in a letter received recently, writes:

*Friend E. R. Root:*—Bros. Larrabee and Lockhart came down on the Rambler this morning, and today the talk is nearly all on a camping party of bee-keepers on Lake George. Mr. Lockhart has secured a cottage on Plumb Bay, three miles from Caldwell, where bee-keepers will assemble from the 19th to the 23d of August, where fishing and a good time generally will be enjoyed. While we can not give a free invitation to *all* that may come, we should be pleased to see any who wish to join us, and guarantee that the expenses will not be out of keeping with a short honey season. If any bee-keepers wish to be accompanied by their wives, there will be no objections. Any further information can be obtained by addressing Mr. F. A. Lockhart, Pattens Mills, N. Y.

About 12 bee-keepers have signified their desire to form such a party, but we hope to get together at least 25. We are having such an off season that we can attend just as well as not.

RAMBLER,  
Supported by Lockhart and Larrabee.

I am pleased to make mention of this trip, so that, if there are any bee-keepers along the route whom I might miss, and who would like to have a short visit, if they will let me know immediately perhaps I can make it convenient to call upon them. I ought not to go far from the Central.

P. S.—I expect to send in notes on the way.

## SPECIAL NOTICES.

### CHINESE ROSE WINTER RADISH.

We have given this a place before every thing else for radishes in the fall. Not only are they better in quality, but they seem to stand the hot weather better. Ounce, 5 cts.; per lb., 60 cts. Sow them any time this month or next.

### CELERY-PLANTS.

We have still on hand a very fine stock of celery-plants for late planting. We have kept them growing nicely by copious watering from the windmill tank. Price 5 cts. for 10; 100, 40 cts.; 1000, \$3.00. If wanted by mail, add 5 cts. for postage for 10, or 25 cts. per 100.

### OUR NEW STRAWBERRY-BOOK, WRITTEN BY T. B. TERRY.

The price of this book will be 35 cts.; by mail, 40. It will be ready to mail in three or four weeks, probably. If you get in a hurry you can have the advance sheets, which are now printed up to page 64, and when the whole book is out we will send you the work complete.

### PRICES OF STRAWBERRY-PLANTS.

The price of the Jessie and Bubach will be 10 cts. for 10; 75 cts. per 100; \$6.00 per 1000. The prices of the Gandy and Haverland, 20 cts. for 10; \$1.50 per 100; per 1000, \$10.00. If wanted by mail, add 5 cts. for 10, or 25 cts. per 100 for postage. These are the only plants we have for sale at present. If you want other varieties, we would refer you to Matthew Crawford, Cuyahoga Falls, Ohio. The Jersey Queen and Sharpless are discontinued, putting the Jessie in place of the Sharpless, and the Gandy in place of the Jersey Queen.

### HONEY WANTED.

We are having calls daily for price of honey, and some orders are sent in without knowing the price. As yet we have not received a pound of new comb honey with which to fill orders. There are more requests for comb than extracted. If any of our readers not too far from here have some nice comb honey in 1-lb. sections well built out to the wood on all sides, so it will stand shipping, please write us, stating the quantity and the price you expect; and if we can not make you an offer, may be we can direct you to a customer.

### TURNIP SEED.

From our past experience with the Purple-top Globe, we are inclined to recommend it in place of all others for sowing in August. We have a large stock of nice seed, just harvested, the seed coming from one of our bee-keeping brethren. Price 5 cts. per oz.; 40 cts. per lb.; 5 lbs. or over, 35 cts. per lb. If wanted by mail, add 9 cts. per lb. for postage and packing. Southern Prize turnip, which stands over winter, and is specially adapted for furnishing blossoms for the bees in spring, same price as the above. This is not as good a turnip for the table as the Purple-top Globe; but it may be sown at almost any time, either in August or September.

### PRICE OF UNTESTED QUEENS REDUCED.

We have quite a lot of tested queens, from a year to two years old. We desire to remove these, and put in their places young queens. All of them produce nice three-banded bees—good queens to breed from. We will sell them at the same price, until they are disposed of, as the untested. This month we make a reduction of 25 per cent over July prices. Untested queens, each, 75c; old tested, 75c; young tested, \$1.13; select tested, \$2.25. If you want an extra yellow queen, the price will be a fourth more. We can not guarantee them to be any better honey-gatherers than the average queens, and perhaps not as good. Honey queens will also be a fourth more. These queens, as also their bees, are leather colored. The progeny of our two honey queens last year gathered and stored honey while the other bees were robbing and gathering nothing. Their daughters may not produce bees any more active; but the chances are that they will be better workers than the average bees.

### OUR FAIR OFFERS.

We copy the following editorial from GLEANINGS of last year, indicating what may be done in the way of education at our State and local fairs:

### MAKE ALL YOU CAN OF THE FAIRS.

Our experience last fall at the Ohio Centennial at Columbus has taught us that much can be done at fairs toward educating the people in our favorite pursuit, and correcting many of the false ideas current among them. Much can be done toward correcting the public mind on the subject of manufactured (?) honey by distributing our \$1000 reward cards, and by having a comb-foundation mill, with samples of wax sheets before and after they have passed through the mill. The worst falsehoods are those which contain a grain of truth, and there is no doubt but that the comb-foundation industry furnishes a foundation and gives strength to the story of manufactured comb honey. In the minds of the great mass of the people, except those directly interested in the use of comb foundation, this product has made a vague impression, and it is not strange, knowing human nature as we do, that this foundation is exaggerated into fully completed comb, and filled with honey or a substitute. One of the best ways to correct the false notions, and shear off the great overgrowth of imagination from the facts is to show to the masses at the fairs how comb foundation is made, explaining the impossibility of accomplishing the manufacture of complete comb honey. Have a piece of natural comb and a piece of the thinnest comb foundation and a magnifying-glass, so that each may be examined. Hand to the skeptical and unbelieving one of our reward cards, offering \$1000 for proof to the contrary of your statements. In all your efforts, be patient and Christlike, remembering that these neighbors who have been misinformed have not had your opportunities for knowing the facts. If this policy is persistently carried out there can not fail to come increased confidence in bee-keepers as a class and their product, and increased consumption of honey.

### INDUCEMENTS FOR FAIR EXHIBITS.

In view of the above it is to your interest as beekeepers to make as fine an exhibit as possible. Your own product should, of course, figure largely in the exhibit. Our show-case will help display your comb honey, and you should have the extracted honey in a variety of attractive packages, mostly glass, tastily labeled.

To help fill out the exhibit and add variety, you need the various implements used in the production of honey, such as a sample hive, frames, sections, honey-extractor, knife, smoker, and what not. To encourage this part of the exhibit, we will, as in years past, allow a discount of 25 per cent from goods of our manufacture which are suitable for such exhibits. These are the conditions on which we grant this discount:

1. That you state with the order at what fair or fairs they are to be entered.
2. That you receive only samples (one of a kind). Five hundred sections, 1 lb. each grade fdn., 50 frames flat, will be counted us units.
3. That you show up the goods to good advantage, and judiciously distribute the advertising matter and samples of GLEANINGS we send along.

If you secure any premiums on the goods, they are yours. If you secure any subscribers to GLEANINGS we will allow you a rebate of 25 cts. on each name so secured. You must, however, charge the full price of \$1.00, and remit us 75 cts. of it. If you sell any A B C books we will mail them to your order at \$1.00 each, you charging \$1.25 in each case.

### OFFER TO THOSE WHO DON'T BUY GOODS.

Some fairs may come off so soon that you won't have time to get the goods you would like, or you may have them already, and are going to exhibit at one or more fairs. To such we offer free one copy of cloth A B C or one year's subscription to GLEANINGS, if you will display posters, and judiciously distribute advertising matter which we will send you on request.

This outfit consists of 100 return business cards, 25 \$1000 reward cards, 10 price lists, 10 copies of GLEANINGS, 10 GLEANINGS posters, and a letter directing you how to use them. We propose to number each lot of cards sent out, and keep a record, so that we shall know from the quantity of cards of each number that are sent back somewhat how well you have done your work.



## Wire Cloth.

For door and window screens, tacking over hives and nuclei for shipping, making bee and queen cages, and a variety of purposes. We have the following list of green and black wire cloth which is not exactly first class, but is practically as good for the purposes mentioned, and at prices MUCH BELOW the ordinary price. You can no doubt select from this list a piece to suit your needs. Price in full pieces, 1½ cts. per square foot. When we have to cut it, 2 cts. In case the piece you order may have been taken by some one else before your order comes, please say whether we shall send the nearest in size, or cut one the size ordered at 2 cts. per ft., or give a second or third choice.

| No. of Rolls,<br>and Color. | Width, in's. | Length, Ft. | Sq. Feet. | Price of a<br>Full Roll. | Pieces less than 100 ft. long. These<br>figures are the number of square<br>feet in each piece. Multiply by<br>1½ cents for the price of piece. |
|-----------------------------|--------------|-------------|-----------|--------------------------|---|
| 10 green                    | 8            | 100         | 67        | \$1.17                   | 65, 65, 64, 63, 63, 62, 54, 40, 33  |
| 1 green                     | 10           | 100         | 83        | 1.46                     |   |
| 25 green                    | 12           | 100         | 100       | 1.75                     | 44, green; price 77 cts.  |
| 2 green                     | 16           | 100         | 133       | 2.33                     |   |
| 1 black                     | 18           | 100         | 150       | 2.62                     |   |
| 4 green                     | 18           | 100         | 150       | 2.62                     |   |
| 1 black                     | 20           | 100         | 167       | 2.92                     |   |
| 1 black                     | 22           | 71          | 128       | 2.24                     | 110 sq. ft.; black; price \$1.92  |
| 9 green                     | 24           | 100         | 200       | 3.50                     | 140, 100, 90, 40, 30, 20, 8, green.   |
| 1 black                     | 24           | 100         | 200       | 3.50                     |   |
| 61 green                    | 26           | 100         | 217       | 3.50                     | This is below reg. pr. of 1½ c.   |
| 18 green                    | 28           | 100         | 233       | 4.08                     | 221, 224, 117, green; 233, black.   |
| 2 green                     | 30           | 100         | 250       | 4.37                     |   |
| 3 black                     | 30           | 100         | 250       | 4.37                     |   |
| 12 green                    | 32           | 100         | 267       | 4.67                     | 253, black; price \$4.43  |
| 1 black                     | 32           | 100         | 267       | 4.67                     | 255, black; price \$4.46  |
| 14 green                    | 34           | 100         | 300       | 5.25                     | 270, green; price \$4.72  |
| 1 black                     | 36           | 100         | 300       | 5.25                     | 150, black; price \$2.62  |
| 8 black                     | 38           | 100         | 317       | 5.54                     | 269, black; price \$4.70  |
| 3 green                     | 38           | 100         | 317       | 5.54                     | 258, black; price \$4.50  |
| 3 black                     | 40           | 100         | 333       | 5.83                     | 317, black; price \$5.54  |
| 8 black                     | 42           | 100         | 350       | 6.12                     | 350, green; price \$6.12  |
| 1 green                     | 44           | 100         | 367       | 6.42                     |   |

A. I. ROOT, Medina, Ohio.

## 1890 ITALIAN QUEENS. 1890

Six young queens, warranted purely mated, for \$5.00. English rabbits, \$1.00 per pair. Mammoth bronze turkey eggs, 25c each; 9 for \$2.00. Send for circular.

Mention this paper.

J. T. WILSON,  
Little Hickman, Ky.

## Cash for Beeswax!

Will pay 25c per lb. cash, or 23c in trade for any quantity of good, fair, average beeswax, delivered at our R. R. station. The same will be sold to those who wish to purchase, at 31c per lb., or 35c for best selected wax.

Unless you put your name on the box, and notify us by mail of amount sent, I can not hold myself responsible for mistakes. It will not pay as a general thing to send wax by express.

A. I. ROOT, Medina, Ohio

## Barnes' Foot-Power Machinery.



Read what J. I. PARENT, of CHARLTON, N. Y., says — "We cut with one of your Combined Machines last winter 50 chaff hives with 7-inch cap, 100 honey-racks, 500 broad frames, 2,000 money-boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it all with this Saw. It will do all you say it will."

Catalogue and Price List Free. Address W. F. & JOHN BARNES, 545 Ruby St., Rockford, Ill.

When more convenient, orders for Barnes' Foot-Power Machinery may be sent to me. A. I. ROOT.

23tf

## VANDERVORT COMB FOUNDATION MILLS.

Send for samples and reduced price list.

JNO. VANDERVORT Laceyville, Pa.

## PASTEBOARD BOXES,

Or Cartons, for One-Pound Sections.



Bee-keepers are realizing more and more the value of these cartons for putting their comb honey in marketable shape. Other articles of home consumption are put up in a neat attractive way, and in shape to be handed to the customer, and carried safely without wrapping. Why not sections of comb honey, especially when the cost of the boxes is so low?

### TABLE OF PRICES OF 1-LB. SECTION CARTONS.

| Name or designation.   | Price of 1 | 25  | 100  | 500  | 1000  |
|--|------------|-----|------|------|-------|
| 1-lb. carton, plain.....   | 2          | .20 | .60  | 2.75 | 5.00  |
| 1-lb. carton, printed one side, name and address.....  |            |     | .90  | 3.50 | 6.00  |
| 1-lb. carton, printed on both sides, name and address.....   |            |     | 1.00 | 3.75 | 6.50  |
| 1-lb. carton, with lithograph label, one side.....   | 3          | .30 | 1.00 | 4.50 | 8.50  |
| 1-lb. carton, with lithograph label on both sides.....   | 3          | .40 | 1.30 | 6.25 | 12.00 |
| 1-lb. carton, with lithograph label one side, name printed.....  |            |     | 1.30 | 5.25 | 9.50  |
| 1-lb. carton, with lithograph label, printed with name on both sides, Lithograph labels, 2 designs, for 1-lb. cartons..... |            |     | 1.70 | 7.25 | 13.50 |
|  |            |     | .35  | 1.60 | 3.00  |

If sent by mail, postage will be 2 cts. each; or in lots of 25 or more, 1 cent each. All the above have tape handles. Price, without tape handles, 6c per 100, or 75c per 1000 less. The quality of the boxes is fair, being made of strawboard, plated outside. If more than 1000 are wanted, write for prices.

A. I. ROOT, MEDINA, O.

**FOR SALE.** My supply business, shop building, and too-s, with 70 colonies of bees. Want to sell at once. Low price and easy terms. Must be disposed of before Dec. 1st, 1890. Address 14-15 16d JAS. A. NELSON, Muncie, Wy. Co., Kan.

In responding to this advertisement mention GLEANINGS.

## THE BEST THING OUT FOR GETTING BEES OUT OF SUPERS.

### The Dibbern Bee-Escape.

Get a pattern, and be sure you have it just right. Now perfect. Tinned wire cloth, soldered on tin. Instantly removable. Sample come by mail, 35c. Complete board, express, 50c.

5-15d

C. H. DIBBERN, Milan, Ill.

In responding to this advertisement mention GLEANINGS.

## LITHOGRAPH LABELS

In 12 Colors, at \$2.00 per 1000.

The 12 colors are, all on each label. They are oblong in shape, measuring 2½x2½. They are about the nicest labels we ever saw for glass tumblers, pails, and small packages of honey. We will mail a sample, inclosed in our label catalogue, free on application, and will furnish them postpaid at the following prices: 5 cts. for 10; 35 cts. for 100; \$1.20 for 500; \$2.00 for 1000. A. I. Root, Medina, O.

## A Four-Color Label for Only 75 Cts. Per Thousand!

Just think of it! we can furnish you a very neat four-color label, with your name and address, with the choice of having either "comb" or "extracted" before the word "honey," for only 75 cts. per thousand; 50 cts. per 500, or 30 cts. for 250, postpaid. The size of the label is 2½ x 1 inch—just right to go round the neck of a bottle, to put on a section, or to adorn the front of a honey-tumbler. Send for our special label catalogue for samples of this and many other pretty designs in label work.

A. I. ROOT, Medina, Ohio.

## AFTER 10 YEARS,

Owing to fine workmanship and first-class materials used in the manufacture of our goods, our business has reached that point where, without boasting, we can justly claim to be the largest manufacturers in the country of all kinds of

### ← BEE-KEEPERS' SUPPLIES. →

The reason of our constantly increasing trade, notwithstanding the great competition, is, that when we get a customer we keep him, as we furnish superior goods at lowest prices.

We wish to also state, that we are sole manufacturers of the

**ARTHUR C. MILLER AUTOMATIC FOUNDATION FASTENER.**

(See description in March 15th GLEANINGS.)

**If You Need Any BEE-HIVES, SECTIONS, FOUNDATION, Etc.,**

Send for catalogue and price list. Address

**The W. T. FALCONER MFG. CO., Jamestown, N. Y.**

(In responding to this advertisement mention GLEANINGS.)

ESTABLISHED IN 1864.

## BEE SUPPLIES.

Wholesale and Retail.

40-page Illustrated catalogue FREE to all. 4tfdb Address **E. KRETCHMER, Red Oak, Iowa.**

(In responding to this advertisement mention GLEANINGS.)

### HEADQUARTERS IN THE SOUTH.

#### FACTORY OF BEE-HIVES, ETC.

From now on I will sell my 4-frame nuclei, with Italian queen, at \$3.75. In lots of 5, at \$3.50 each. Untested queens, at \$9.00 per dozen in June; \$8.00 per dozen in July. Satisfaction and safe arrival guaranteed. Twelfth annual catalogue.

9tfdb **P. L. VIALON, Bayou Goula, La.**

Please mention this paper.

## BEES

SEND for a free sample copy of the **BEE JOURNAL**—16-page Weekly at \$1 a year—the oldest, largest, and cheapest Weekly bee-paper. Address **BEE JOURNAL, Chicago, Ill.**

16tfdb

Please mention GLEANINGS.

1tfdb

## GOLDEN ITALIANS.

Warranted to produce 3 banded workers, and safe arrival guaranteed. I can fill all orders for less than one dozen by return mail if desired, price 75c each. Look at my ad in June Nos. of GLEANINGS. Address **JAMES WOOD, North Prescott, Mass.** 11tfdb

(In responding to this advertisement mention GLEANINGS.)

### CHENANGO VALLEY APIARY

Fills orders now, and sends out by return mail, Beautiful Yellow Italian Queens. Untested, \$1.00. Tested, \$1.25. Send for circular. 14tfdb

**MRS. OLIVER COLE, Sherburne, Chenango Co., N. Y.**

(In responding to this advertisement mention GLEANINGS.)

## J. C. SAYLES,

**HARTFORD, WIS.,**

*Manufactures Apiarian Supplies of Every Description. Catalogue Free to All.*

3tfdb *Send Your Address.*

(In responding to this advertisement mention GLEANINGS.)

### PATENT WIRED COMB FOUNDATION

HAS NO SAG IN BROOD-FRAMES.

### THIN FLAT - BOTTOM FOUNDATION

Has No Fish-bone in Surplus Honey.

Being the cleanest is usually worked the quickest of any Foundation made.



**J. VAN DEUSEN & SONS,**

Sole Manufacturers.

Sprout Brook, Montgomery Co., N. Y.

(In responding to this advertisement mention GLEANINGS.)

## IF YOU WANT BEES

That will just "roll" in the honey, try **Moore's Strain of Italians**, the result of eleven years' careful breeding. Reduced prices: Warranted queens, 80c each; 3 for \$2.00. Strong 3 L. frame nucleus, with warranted queen, \$2.50. Safe arrival and satisfaction guaranteed. Those who have never dealt with me, I refer to A. I. Root, who has purchased of me, during past ten years, 415 queens.

**J. P. MOORE, Morgan, Pendleton Co., Ky.**

13tfdb Money-order office, Falmouth, Ky.

Please mention this paper.

## GLOBE BEE-VEIL



A center rivet holds 5 spring-steel bars like a globe to support the bobinet Veil. These button to a brass neck-band, holding it firmly—\$1.00.

We have some damaged Veils which we will mail for 60 cents—just as good as any but soiled by smoke in a recent fire. Two for \$1.10.

Special rates to dealers, by the doz.

**THOS. G. NEWMAN & SON,**

246 East Madison Street, CHICAGO, ILL.

Please mention this paper.

13-15-17d

**FOR SALE.**—Italian queens; tested, at \$1.00 each; untested, 75c. each. Safe arrival.

13-15-17d **L. A. RESSLER, Nappanee, Ind.**

## Bee-Keepers' Supplies.

**WHY ÷ SEND ÷ LONG ÷ DISTANCES ?**

SEND NAME ON POSTAL CARD FOR MY

NEW PRICE LIST TO

**C. P. BISH, Grove City, Mercer Co., Pennsylv'a.**

Formerly of St. Joe Sta., Butler Co., Pa.

ESTABLISHED IN 1884.

Please mention this paper.

9tfdb

## PURE ITALIAN QUEENS.

Tested queens, \$1.00 each; untested queens, 70c each; 3 for \$2.00. All queens bred from select imported and home-bred queens. Safe arrival guaranteed.

**D. G. EDMISTON,**

Adrian, Lenawee Co., Mich.

1890

**FINE ITALIAN QUEENS, FROM** bees for business; untested, each 75c; six, \$4.00. Order now, pay when queens arrive. 13 16db **W. H. LAWS, Lavaca, Ark.**